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Report of the Ministry of Forests

Fiscal Year Ended March 31, 1983

Province of British Columbia
Ministry of Forests

Honourable T.M. Waterland, Minister

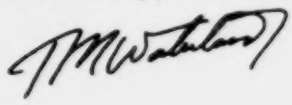
October 11, 1983

The Honourable Robert G. Rogers,
Lieutenant-Governor of British Columbia

May It Please Your Honour:

Herewith I respectfully submit the Annual Report of the Ministry of Forests for the year ended March 31, 1983.

Yours truly,



T.M. Waterland,
Minister

September 30, 1983

The Honourable T.M. Waterland,
Minister of Forests,
Parliament Buildings,
Victoria, B. C.

Sir:

I have the honour to submit the Annual Report of the Ministry of Forests for the year ended March 31, 1983.

Yours truly,

T.M. Apsey,
Deputy Minister

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I. DIRECTORY (March 31, 1983)

Victoria

Minister

HON. T.M. WATERLAND

Executive Committee

T.M. APSEY,
Deputy Minister and Chairman, Executive Committee
R.J. CULLEN,
Assistant Deputy Minister, Finance and Administration Division
W. YOUNG,
Chief Forester and Assistant Deputy Minister, Forestry Division
R.W. ROBBINS,
Assistant Deputy Minister, Operations Division
A.C. MacPHERSON,
Assistant Deputy Minister, Timber, Range and Recreation Division

Executive Director

J.A.K. REID,
Legislation and Policy

Branch Directors

C.P. WILLIAMS,
Director, Engineering Branch
R.W. LONG,
Ministry Comptroller, Financial Services Branch
J.R. COX,
Director, Information Services Branch
F. HEGYI,
Director, Inventory Branch
J. SHEPPARD,
Director, Legal and Administrative Services Branch
L.G. UNDERWOOD,
Director, Personnel Services Branch
C.J. HIGHSTED,
Director, Planning Branch
H.G. DOERKSEN,
Director, Protection Branch
W.H. McLACHLAN,
Director, Range Management Branch
H.N. MARSHALL,
Director, Recreation Management Branch
J.A. DANGERFIELD,
Director, Research Branch
C.M. JOHNSON,
Director, Silviculture Branch
E. KNIGHT,
Director, Strategic Studies Branch
J.G. HILL,
Director, Systems Services Branch
R.K. NATSUHARA,
Director, Technical Services Branch
J.J. JUHASZ,
Director, Timber Management Branch
H. WAELTI,
Director, Valuation Branch

DIRECTORY (CONTINUED)

Forest Regions and Districts

Cariboo Forest Region

Regional Manager

J.A.D. McDONALD,
Williams Lake

District Managers

R. REEVES,
Chilcotin Forest District, Alexis Creek
J. MENNING,
Horsefly Forest District, Horsefly
R.T. OSTBY,
100 Mile House Forest District, 100 Mile House
O.J. KETTLESON,
Quesnel Forest District, Quesnel
W.S. CARR,
Williams Lake Forest District, Williams Lake

Kamloops Forest Region

Regional Manager

A.B. ROBINSON,
Kamloops

District Managers

M.E. MONTEITH,
Clearwater Forest District, Clearwater
H.W.A. JANNING,
Kamloops Forest District, Kamloops
B.E. LAPOINTE,
Lillooet Forest District, Lillooet
J.E. LeDUC,
Merritt Forest District, Merritt
S.E. HANSEN,
Penticton Forest District, Penticton
J.H. LITTLE,
Salmon Arm Forest District, Salmon Arm
E.W. HEWITT,
Vernon Forest District, Vernon

Nelson Forest Region

Regional Manager

J.R.D. CUTHBERT,
Nelson

District Managers

G.B. ALLIN,
Arrow Forest District, Castlegar
W.E. BRASH,
Boundary Forest District, Grand Forks
R.R. TOZER,
Cranbrook Forest District, Cranbrook
D.E. GILL,
Golden Forest District, Golden
VACANT,
Invermere Forest District, Invermere
J.P. SEDLACK,
Kootenay Lake Forest District, Nelson
T. HARVIE,
Revelstoke Forest District, Revelstoke

Prince George Forest Region

Regional Manager

M.J. WILKINS,
Prince George

District Managers

T.R. GIBBS,
Dawson Creek Forest District, Dawson Creek
A.C. JOYCE,
Fort Nelson Forest District,Fort Nelson
W.E. HALL,
Fort St. James Forest District, Fort St. James
R.G. MILLER,
Fort St. John Forest District, Fort St. John
C.L. NELSON,
Mackenzie Forest District, Mackenzie

DIRECTORY (CONTINUED)

R.M. HAWKINS,
McBride Forest District, McBride
R.G. TRENAMAN,
Prince George East Forest District,
Prince George
K.W. MAGEE,
Prince George West Forest District,
Prince George
K.E. ARNETT,
Vanderhoof Forest District, Vanderhoof

Prince Rupert Forest Region

Regional Manager

J.A. BIICKERT,
Smithers

District Managers

J.H. WENGER,
Bulkley Forest District, Smithers
G.I. BOWIE,
Cassiar Forest District, Dease Lake
G.F. DODD,
Kalum Forest District, Terrace
T.H. PETER,
Kispiox Forest District, Hazelton
A. R. PEMENT,
Lakes Forest District, Burns Lake
R.W. THOMAS,
Mid-Coast Forest District, Bella Coola
D.A. AMONSON,
Morice Forest District, Houston
J.G. WARD,
North Coast Forest District, Prince Rupert
T.A. DYER,
Queen Charlotte Islands Forest District,
Queen Charlotte City

Vancouver Forest Region

Regional Manager

D.T. GRANT,
Vancouver

District Managers

D.E. deHART,
Campbell River Forest District, Campbell
River
J.H. CARRADICE,
Chilliwack Forest District, Chilliwack
T.A. WALKER,
Duncan Forest District, Duncan
D.B. DOERKSEN,
Maple Ridge Forest District, Maple Ridge
R.A. CAMPBELL,
Port Alberni Forest District, Port
Alberni
W.S. MILLWARD,
Port McNeill Forest District, Port
McNeill
J.B. MOUNTAIN,
Powell River Forest District, Powell
River
B.L. CUSTANCE,
Sechelt Forest District, Sechelt
N.P. GILGAN,
Squamish Forest District, Squamish

II. Deputy Minister's Message

This Annual Report reviews the accomplishments and expenditures of the Ministry of Forests in the 1982-83 fiscal year, relative to the goals and spending estimates set forth in the Five-Year Forest and Range Resource Program, 1982-1987, which was submitted to the Legislative Assembly and published in April, 1982.

A broad overview of ministry expenditure, revenue and accomplishments during 1982-83 is given first, followed by a brief review of economic conditions during the year. Further details of ministry activities are provided in the individual program reports and tables.

Ministry Expenditure, Revenue and Accomplishments

In 1982-83, expenditure by the ministry totalled $305.3 million, which was $25.9 million less than forecast in the five-year program. This amount was funded from the following sources:

Ministry of Forests budget	$149.3 million
Employment Development Account	$ 13.5 million
Forest and Range Resource Fund	$ 83.7 million
Credits against stumpage revenue	$ 58.8 million
TOTAL	$305.3 million

Government restraint measures introduced during 1982-83 changed the method of funding from that of the previous year and led to a two year delay of the expansion planned in the previous Five-Year Forest and Range Resource Program, published in March, 1981. The budget, including the allocation from the Employment Development Account, was $30.6 million lower than in 1981-82. Funding from the Forest and Range Resource Fund was $45.1 million higher, thereby depleting the fund. Credits against stumpage revenue were $6.2 million less than in 1981-82, due primarily to reduced road construction. An increase of $9.0 million in credits against stumpage revenue for silviculture was more than offset by a decrease of $14.9 million in credits for road construction.

All expenditure tables contained in this report include ministry expenditures made from all four sources of funds. An additional $4.7 million was appropriated from the Employment Development Account in 1982-83 as the provincial contribution to the Canada-British Columbia Employment Bridging Assistance Program (EBAP). Activity funded through EBAP was incremental to the five-year program and therefore the expenditure and accomplishments under EBAP are excluded from the statistical tables in Sections IV and V. A special report in Section VII describes the success of EBAP in helping the unemployed while increasing the productivity of the province's forest resources through additional intensive management.

A comparison of forecast and actual expenditure by program and forest region is shown in Tables 1 and 2. Total expenditure was 8% lower than forecast and 3% lower than a revised forecast which incorporated a reduction of $18.3 million for most of the restraint measures. An additional $2.0 million was saved by restricting recruitment. All other comparisons of forecast and actual expenditure in this report are made in terms of the forecast published in the five-year program.

The provision for the Fire Suppression Program in the five-year program published in April, 1982, was insufficient for the severe fire season of 1982-83. Excluding this program, which has open-ended funding under Section 124 of the Forest Act, expenditure by the ministry was 16% lower than forecast.

Three programs, one forest region and headquarters show differences of more than 10% between forecast and actual expenditure. The Harvesting Programs's actual expenditure was 34% lower, due to poor market conditions; the Forest Protection Program 25% lower; and the Fire Suppression Program 139% higher, due to an exceptionally bad fire season. The Prince George Forest Region exceeded its forecast by 13%, reflecting a concentration of fire suppression expenditure in that region; and the headquarters in Victoria expended 24% less than forecast.

The composition of actual ministry expenditure is detailed in Tables 3 and 4. Reflecting the policy of implementing ministry programs through the private sector wherever possible, 38% of total expenditure was for contract work and work by licencees for credit against stumpage under Section 88 of the Forest Act. Salaries and wages accounted for 43% of total expenditure. The remaining 19% were for materials, supplies and other operational expenses.

Table 5 gives a detailed breakdown of forest and range revenue by forest region. Forest revenue in 1982-83 was $87.3 million on an accrual basis, after deduction of $58.8 million in Section 88 credit against stumpage. On a cash basis, forest revenue was $92.9 million, down from $107.0 million in 1981-82 and $360.8 million in 1980-81. Range revenue in 1982-83 was $1.3 million, only slightly lower than in the previous two years.

A record number of trees was planted in British Columbia during 1982-83, under the Silviculture Program. On Crown and private land together, 105.3 million trees were planted. This was the first year in which more than 100 million trees were planted in the province.

On Crown land, the number of trees planted in 1982-83 was 25% greater than in the preceding year. All the goals for tree planting on Crown land in 1982-83, as established in the five-year program, were exceeded. The goals were 97 million trees planted on 78 800 hectares (ha) of Crown land, of which 8 200 ha were intended for backlog planting on land denuded for more than a few years. The 1982-83 results were 97.7 million trees planted on 85 600 ha of Crown land, of which 9 700 ha were for backlog planting. The planting on recently denuded land exceeded the goal of 70 600 ha by over 5 200 ha.

Goals for other silvicultural treatments were also exceeded or nearly met, with the exception of conifer release. These accomplishments under the Ministry's five-year program were supplemented by work under EBAP:

	Five-Year Program Goals	Five-Year Program Accomplishments	EBAP Accomplishments	Combined Accomplishments
		(ha)		
Basic Silviculture				
Surveys	256 300	266 823	-	266 823
Site Preparation	52 000	62 661	-	62 661
Planting	70 600	75 854	-	75 854
Brushing & Weeding	3 600	4 423	4 045	8 468
Intensive Silviculture				
Backlog Planting	8 200	9 739	-	9 739
Spacing	16 100	15 849	8 649	24 498
Fertilization	800	5 759	-	5 759
Site Rehabilitation	3 100	2 782	-	2 782
Conifer Release	2 200	992	-	992
Other[1]	-	-	8 550	8 550

1 Includes pruning, site preparation, conifer release, site rehabilitation, mistletoe control, snag falling, sanitation spacing, juvenile spacing layout and silviculture access.

Under the Harvesting Program, 60.9 million cubic metres (m^3) of timber were harvested, of which 93% was harvested from Crown land. The Small Business Enterprise Program, introduced in 1980 to promote competition and innovation in the forest industry by making timber available to small operators, expanded despite poor market conditions. The volume of timber sold under the Small Business Enterprise Program increased by 59% to 4.4 million m^3.

A special report on "Apportionment of Rights to Harvest Crown Timber" is given in Section VI. During 1982-83, apportionment of the Allowable Annual Cut (AAC) to licencees was completed for all Timber Supply Areas (TSAs) except the Cassiar TSA in the province's northwest corner. This marks the virtual completion of an important task arising from the new forest legislation of 1979, which reorganized the types of timber tenures available.

The 1982 Annual Report of the Ombudsman, by Ombudsman K.A. Friedmann, noted that the ministry has acted on its implicit obligation to notify individuals of their appeal rights by publishing two pamphlets. Everyone who enters into an agreement with the ministry is given a pamphlet describing appeal rights. Aside from being noted as generally cooperative, the ministry was credited with willingness to take special corrective action. The ombudsman's main concern was that the ministry's Public Involvement Program appeared to be suffering from a lack of financial and managerial commitment, and that opportunities for public input were being limited. The ministry is reviewing its procedures for public involvement, due to problems inherent in the current system, and is maintaining the program at a level commensurate with available funds and the need for public involvement in forest and range resource management.

Economic Conditions

The year 1982-83 marked the low point of the longest and deepest recession in the British Columbia forest industry since World War II. Industry, labour and government suffered substantial losses, unemployment and lost revenues, respectively. A recovery appears to have begun in early 1983, but the effects of the recession may take years to overcome.

The recession was not limited to British Columbia's forest industry. Increasing rates of inflation in most industrialized nations over the last decade prompted corrective actions. In the United States, the Federal Reserve Board began a restrictive monetary policy in 1979. This resulted in high interest rates which slowed economic growth in the United States, with similar effects spilling over into the economies of other nations.

The United States lumber market, which normally consumes approximately 60% of British Columbia's lumber production, remained as weak in 1982 as in the previous year, but showed a marked improvement in late 1982 and the first half of 1983. Public and private housing starts amounted to only 1.1 million in both 1981 and 1982, compared with a cyclical peak of over 2.0 million in 1977 and 1978. The annualized rate for the first half of 1983 rose to 1.7 million units, the highest since 1979. Lumber prices rose sharply through the first half of 1983 before declining over the summer months as the supply response by sawmills exceeded the increase in lumber demand.

Prices for newsprint and pulp dropped approximately 6% and 25%, respectively, in 1982, as the recession caused lower demand for these products throughout the industrialized world. Newsprint capacity in North America increased significantly in recent years. Growth in newsprint supply consequently exceeded growth in demand, thereby weakening prices. The drop in pulp prices reflected the general recession and the continued devaluation of the currencies of Scandinavian countries which are major competing pulp producers.

The poor market conditions caused an unprecedented spill of red ink on corporate financial statements. Many operations were closed temporarily to reduce inventories and cease unprofitable production. The market conditions also accentuated the long term problems of old facilities such as the sawmill at Chemainus and the plywood mill at Victoria, thereby precipitating closure of these operations.

Similarly difficult economic conditions in the United States triggered the formation of a relatively small group of United States lumber producers, the Coalition for Fair Canadian Lumber Imports, which lobbied for countervailing duties on the basis of alleged subsidies for Canadian lumber. The case was triggered, in part, because Canadian producers had increased their share of the United States lumber market from approximately 20% to 30% in the last decade. Recognizing the devastating effect that imposition of a significant duty would have on the British Columbia economy, the ministry played an active role, in cooperation with the Council of Forest Industries of British Columbia and the federal government, to ensure that the threat of a duty would not be realized. The Canadian position that no significant subsidies exist for lumber was persuasive and, in May, 1983, the United States International Trade Administration decided not to impose countervailing duties.

Temporary shutdowns, lower operating rates and cost cutting through staff reductions caused a high rate of unemployment among forestry workers. To ease the problems of unemployed people, the provincial and federal governments cooperatively funded EBAP. The Ministry of Forests coordinated activities of the program in the field.

During 1982-83, Fletcher Challenge Limited of New Zealand purchased Crown Zellerbach Canada Limited from its parent company in the United States. It is hoped that the new company and the province will benefit from a transfer of knowledge based on New Zealand's considerable experience with intensive management of forest plantations.

Despite the recession which has hurt all sectors of the province's economy, I am confident that the recovery, which now appears to be gaining momentum, will reestablish the vitality of industries dependent on forest and range resources. The Ministry of Forests will continue to manage, protect and conserve these resources for the benefit of present and future generations.

T.M. Apsey
Deputy Minister

III. PROGRAM REPORTS

Management Program

The Management Program provides senior executive direction for the ministry, managerial control throughout the ministry and the dissemination of information concerning ministry activities. This is achieved through the executive, Information Services Branch and Strategic Studies Branch in Victoria; regional managers, regional staff managers and information officers in the regional offices; and district managers, operations superintendents and support services supervisors in the district offices.

In 1982-83, expenditure under the Management Program was $11.4 million. As shown in Table 1, actual expenditure exceeded the amount forecast in the five-year program by $0.3 million, or about 3%. About 85% of the program's expenditure was for wages and salaries.

The first exchange of timber harvesting rights under Section 51 of the Forest Act was completed in 1982-83. Through the exchange of 1.45 million m^3 of timber in remote timber licences for 1.45 million m^3 of unencumbered Crown timber closer to the licensee's other operations, resource management and development will be improved. Analyses and negotiations for future exchanges involving approximately 18.0 million m^3 of timber progressed during the year.

Informing the public about ministry activities and major decisions was accomplished with a wide range of media. These included many news releases, speeches delivered by the Minister of Forests and the executive, pamphlets and a variety of other publications. Three issues of the critically acclaimed ForesTalk magazine were produced and circulated. A half-hour film, "Black and Green," was produced to explain the importance of fire and fire management to forest and range resources. An analysis titled Reservation of Old Growth Timber for the Protection of Wildlife Habitat on Northern Vancouver Island was written in cooperation with the British Columbia Ministry of Environment and circulated for public discussion. The substantial response showed the usefulness of this forum.

Work began on the next Forest and Range Resource Analysis, to be completed in the fall of 1984 for release in early 1985. The last such analysis, published in 1980, formed the basis for widespread public discussion which led to the government's general directives that shaped current ministry policies and programs. Thirty projects for the new analysis were initiated during 1982-83, to provide comprehensive technical information on the state of the province's forest and range resources.

Numerous changes in the ministry's planning and budgeting procedures, necessitated by the new legislation of 1979, were settled during 1982-83. The result is the Ministry of Forests Management System. This was described in a small booklet published during the fiscal year. The Management System's key elements are:

- comprehensive technical analyses of forest and range resources which are produced periodically,
- five-year forest and range resource programs which state goals and are updated annually,
- annual budgets for implementing the programs, and
- annual reports which review and evaluate progress toward achievement of goals in the program then in effect.

These key elements, produced by the Management Program, are closely linked and enable accountable, far-sighted management.

Finance and Administration Program

The objective of the Finance and Administration Program is to provide the ministry with an efficient financial and administrative support infrastructure. This includes financial management, computerized management information systems, personnel services, productive and safe work environments, and various para-legal, technical and equipment services. Buildings, grounds and offices for the entire ministry are provided by the Finance and Administration Program.

Forecast expenditure for 1982-83 for the Finance and Administration Program was $58.6 million; actual expenditures for the year were $52.6 million. This included payments of $19.3 million to the British Columbia Buildings Corporation for buildings, grounds and offices throughout the province.

In August, 1982, the first Five-Year Business Plan (1982-1987) for the Finance and Administration Program was published, and an ongoing process for updating the plan was put in place. This plan set goals for meeting the ministry's financial and administrative needs more efficiently, and emphasized the links between the ministry's objectives, human and financial resources, and outputs.

In April, 1982, a Financial Management Task Force, reporting to the Deputy Minister and chaired by the Assistant Deputy Minister, Finance and Administration Division, was established to effect improvements in financial management for the ministry. Progress was made in the following major areas:

1. The investment analysis phase for a ministry-wide Financial Management Information System was completed.

2. The Interactive Estimates System was developed for micro-computer application by all regional offices.

3. A joint audit of the ministry's revenue system was completed by the ministry and the Internal Audit Division of the Comptroller General in the Ministry of Finance.

4. The ministry's Financial Signing Authority Matrix was implemented, delegating certain payment, spending and revenue authorities throughout the ministry. New policies and procedures were developed and implemented, as were amendments to conform with the Financial Administration Act.

5. Improvements were made in the financial administration of Section 88 of the Forest Act.

Ministry training programs were reviewed and emphasis was placed on professional/technical training.

For the second consecutive year the Ministry of Forests won the Premier's Award for Safety Achievement. The award is presented annually to one of the six larger, more potentially hazardous ministries in competition for the largest reduction in their accident severity records.

During 1982-83 the regional computer network became fully operational, allowing efficient and timely access to centralized systems. An executive information system was implemented, providing opportunities for more rapid access to and update of operational information by senior management and the executive. The main word and data processing facilities at headquarters were consolidated, providing some economies and increased capabilities to meet higher demands. Electronic word processing facilities were extended to the first two district offices, allowing the reduced staff levels to meet operational requirements.

Three vehicle policies - Vehicle Pooling, Vehicle Operations, and Intra-Ministry Rentals - were introduced just before the start of the fiscal year, resulting in a significant improvement in the utilization of ministry vehicles and equipment, improved pooling of vehicles throughout the ministry, and a reduction in the size of the fleet.

A major study of asset management and control was completed, covering ministry warehousing and procurement policies, procedures and systems. Implementation of the study's recommendations was begun.

Continued effort has eliminated redundant forms and has streamlined procedures.

Harvesting Program

The objective of the Harvesting Program is to make timber available to the forest industry in a manner which reflects provincial forest resource use objectives and ensures that the financial interests of the Crown are realized. The program includes timber management, valuation, scaling, engineering and road construction, planning and those parts of inventory and research which relate to the harvesting of timber.

Expenditure on the Harvesting Program in 1982-83 was $67.8 million, which was $34.5 million less than the amount forecast in the five-year program. Approximately 85% of the expenditure shortfall was due to a cutback in road construction performed by the private sector and reimbursed through credits against stumpage. Section 88 road credits declined from $29.0 million in 1981-82 to $14.0 million in 1982-83. In comparison, expenditure on road construction financed through Section 88 credits totalled $51.0 million in 1980-81. The sharp curtailment in developmental road construction during the recession reflected efforts by the forest product companies to minimize delivered wood costs by concentrating harvesting activity in close-in timber and to conserve cash flow by avoiding the interim financing required to undertake major road projects.

The composition of expenditure under the Harvesting Program is shown in Tables 3 and B-1. Approximately 60% of the total expenditure of $67.8 million was accounted for by wages and salaries during 1982-83. By activity, engineering and roads represented 36% of the total despite the relatively low level of Section 88 road credits approved in 1982-83.

Expenditure for scaling amounted to $10.0 million in 1982-83. Much of the total is recoverable through the scaling fees paid by the forest industry. Scaling fees and other sources of forest revenue by forest region are shown in Table B-2.

Expenditures under the remaining activities of the Harvesting Program, valuation, timber management, and planning, inventory and research, together totalled $33.4 million. Inventory accounted for $8.5 million or 69% of the total expended under the composite category, planning, inventory and research.

Forest revenue from the Harvesting Program declined to $87.3 million (measured on an accrual basis) in 1982-83. (Calculated on a cash basis comparable to previous years, forest revenue in 1982-83 totalled $92.9 million, compared to $107.0 million in 1981-82.) The significant decrease in forest revenue from the cyclical peak of $570.2 million in 1979-80 was attributable primarily to the impact on stumpage of the prolonged downturn in forest product markets, especially the United States residential construction market.

Depressed log and lumber prices throughout most of the year again caused minimum stumpage rates to be prevalent both on the coast and in the interior in 1982-83. Average stumpage prices by species and forest region for 1982-83 are shown in Table B-3.

In 1982-83, 60.9 million m^3 of timber were harvested. Details of the timber harvest by land status and species are shown in Tables B-5 and B-6. Area harvested is shown in Table B-7, by forest region and harvest method. The volume of wood harvested in 1982-83 was down slightly from 1981-82 as harvesting activity continued at a relatively low level due to adverse market conditions. As shown in Table B-8, log exports during 1982-83 totalled 1.6 million m^3, approximately 3% of the total harvest. Log exports, which are countercyclical, increase as a share of the total harvest in poor market years such as 1982-83.

The generally poor market conditions which prevailed throughout 1982-83 were also evident in the financial performance of the forest industry. For the year 1982, nine publicly traded forest product companies operating in British Columbia experienced total after-tax losses of $0.2 billion on sales of $4.2 billion.

Weak product demand and low prices caused many companies to curtail production and to lay off workers during the year. The estimated value of shipments by the provincial forest industry declined by approximately 10% in 1982 to $6.3 billion. Sales fell in both the wood products and the pulp and paper sectors of the industry. Forest industry employment declined for the third consecutive year in 1982 to approximately 72,000 persons. This compares with approximately 77,000 persons in the 1975 recession and 97,000 persons in the 1979 market peak. To alleviate the social and economic costs associated with rising unemployment, especially among forest industry workers, the provincial and federal governments cooperated in 1982 to establish the Canada-British Columbia Employment Bridging Assistance Program. This program is the subject of the special report found in Section VII.

The number of licences administered and the volume of wood committed under the Harvesting Program are shown in Tables B-10 and B-11. The changes in these tables from 1981-82 reflect primarily the effect of apportionment and the concommitant roll-over of licences as provided for by the Forest Act. The completion of the apportionment procedure was a major accomplishment under the Harvesting Program in 1982-83. The process and its results as at March 31, 1983, are described fully in the special report in Section VI. Also during 1982-83, the first woodlot licence under the Forest Act, 1979, was awarded.

The ministry is committed to public involvement in planning the management of the forest and range resources. A report summarizing activities under the Public Involvement Program in 1982-83 is available upon request.

Activity under the Small Business Enterprise Program in 1982-83 is shown in Tables B-4 and B-9. The volume harvested under the Small Business Enterprise Program increased by 74% in 1982-83 to 2.5 million m^3. The volume sold increased by 59% to 4.4 million m^3, which is 90% of the annual volume set aside for the Small Business Enterprise Program under apportionment.

Silviculture Program

The objectives of the Silviculture Program are to restock denuded land and to improve the value and productivity of forest stands through silvicultural treatments. Denuded land is restocked through natural seeding and planting where necessary. Site preparation is frequently used to promote natural restocking and to facilitate planting. Brushing and weeding is carried out on some plantations to ensure unimpeded growth of seedlings. Spacing, fertilization and conifer release are among the treatments used on forest stands to improve their value and productivity.

Forecast expenditure for 1982-83 was $96.6 million; actual expenditure was $93.8 million (see Table C-1).

A record 105.3 million seedlings were planted in British Columbia during 1982-83. Of these, 7.6 million seedlings were planted on 8 006 ha of private land, and 97.7 million trees were planted on 85 593 ha of Crown land. Approximately 88% of the planting on Crown land was on land denuded recently (basic silviculture); the remaining 12% was backlog planting (intensive silviculture).

Under the terms of the British Columbia-Canada Subsidiary Agreement on Intensive Forest Management, the federal government contributed $5.0 million toward enhancement of the forest resource base of the province through the implementation of intensive forest management, particularly for backlog reforestation and juvenile spacing. Silvicultural treatments funded by this agreement are included in this report on the Silviculture Program.

The Canada-British Columbia Employment Bridging Assistance Program, described in a special report in Section VII, funded additional silvicultural work which is not included in this report on the Silviculture Program.

The Silviculture Program consists of four components described below.

Basic Silviculture

For Crown land, the goals and accomplishments in basic silviculture for 1982-83 were:

	Goals	Accomplishments
	(hectares)	
Surveys[1]	256 300	266 823
Site Preparation	52 000	62 661
Planting	70 600	75 854
Brushing & Weeding	3 600	4 423

1 Includes surveys of basic and backlog plantations and surveys of natural restocking on basic and backlog Crown land.

During 1982-83, the ministry and licensees surveyed a total of 266 823 ha of Crown land. Some 67% (178 736 ha) of the area surveyed was found to have sufficient commercially valuable trees to be classified as satisfactorily restocked. A small area, about 1% (3 644 ha), was found to be non-productive. The remaining 32% (84 443 ha) of the area surveyed will be planted, rehabilitated and planted, site prepared for natural restocking or left for natural restocking, depending on the results of the survey.

About 64% (169 963 ha) of the total area surveyed had been denuded and left to restock naturally, with or without site preparation (see Table C-2). Of this area left to restock naturally, 55% (92 856 ha) was satisfactorily restocked.

Approximately 36% (96 860 ha) of the total area surveyed had been planted following denudation (see Table C-3). Of this planted area surveyed, 89% (85 880 ha) was satisfactorily stocked.

Recently denuded areas are inspected to determine if site preparation is necessary to obtain natural restocking or to prepare land for planting. Site preparation to promote natural restocking decreased in 1982-83 to 11 091 ha (see Table C-4). An additional 9 567 ha were assessed and found not to require treatment to ensure natural restocking. Site preparation for planting in 1982-83 increased to 51 570 ha (see Table C-5). An additional 14 193 ha were deemed not to require any treatment prior to planting.

The goal for planting on Crown land was exceeded in 1982-83, with 86.1 million trees planted on 75 854 ha (see Table C-6). An additional 7.6 million seedlings were planted for basic silviculture on 7 985 ha of private land.

Brushing and weeding treatments to control undesirable vegetation in young stands increased in 1982-83 to 4 423 ha (see Table C-7). Brushing and weeding treatments were concentrated in the Vancouver Forest Region where brush encroachment on very productive sites is a serious problem.

Average costs of basic silviculture treatments are detailed in Table C-9.

Intensive Silviculture

For Crown land, the goals and accomplishments in intensive silviculture for 1982-83 were:

	Goals	Accomplishments
	(hectares)	
Backlog Planting	8 200	9 739
Spacing[1]	16 100	15 849
Fertilization	800	5 759
Site Rehabilitation	3 100	2 782
Conifer Release	2 200	992
Thinning	-	-

1 Includes juvenile and sanitation spacing.

Restocking of a backlog of forest land that has been denuded for several years is one of the ministry's important activities which is funded in part by the federal government. In 1982-83, 11.5 million trees were planted on 9 739 ha of backlog Crown land (see Table C-6). An additional 20,000 trees were planted on 21 ha of backlog private land.

A total of 25 382 ha of Crown land was treated in 1982-83 to improve the value and productivity of forest stands (see Table C-8). Spacing treatments were concentrated in fast growing stands of high potential value in the Vancouver Forest Region. Spacing immature stands removes excess trees which compete for nutrients and light, allowing growth to be concentrated on the remaining crop trees. Fertilization treatments, which were funded primarily under Section 88, substantially exceeded the goal, because operational decisions shifted funds to fertilization when problems were encountered with other treatments. Thinning was curtailed during 1982-83, due to a lack of markets for the small trees taken out in this treatment.

Average costs of intensive silviculture treatments are provided in Table C-9. The cost of spacing in the Vancouver Forest Region was lower than in the previous year, due to increased competition for contracts. The increased competition was partly due to high unemployment in the forest industry. The average cost of conifer release in the Vancouver Forest Region was higher than in the previous year, due to a lower proportion of aerial spray treatments which cost less.

Nursery Operations

In preparation for future planting requirements, the ministry's nurseries sowed for 100.0 million seedlings during 1982-83. Private nurseries sowed for an additional 35.5 million seedlings.

Some sites require larger planting stock which can compete successfully with other vegetation. The ministry transplanted 13.3 million seedlings in 1982-83 for this purpose. Private nurseries transplanted an additional 10.0 million seedlings.

Seed Operations

In the fall of 1982, natural stands had a medium cone crop on the coast and a good crop in parts of the interior. The cone collection from natural stands was of medium size and produced 7 488.2 kilograms (kg) of seed (see Table C-10). A record cone collection from seed orchards produced 235.4 kg of seed. With seed withdrawals of 1 968.0 kg during 1982-83, the seed inventory was 39 098.4 kg at the end of the year.

Planning continued for a new seed processing facility to meet the needs of the expanding program. Three new seed orchards were established during the year, bringing the total number of orchards at March 31, 1983, to 35, covering 103.0 ha. The ministry funds 27 of these seed orchards, covering 86.5 ha; of these 11 are funded through Section 88 and cover 27.1 ha. Coastal and Interior Tree Improvement Councils, consisting of representatives from forest industry firms and the ministry, were active in advising the chief forester on tree improvement and seed orchards.

Research Program

The Research Program provides the ministry and other government agencies with improved scientific knowledge and methods for achieving objectives in forest and range management.

In 1982-83, expenditure under the Research Program amounted to $9.2 million, which was approximately $0.8 million below the amount forecast in the Five-Year Forest and Range Resource Program. The $9.2 million excludes expenditure devoted to research which was allocated directly to other programs.

Research into silvicultural issues addressed again the urgent need for managed stand growth and yield information. First approximation yield tables for plantation establishment density and for juvenile spacing were developed for coastal Douglas-fir and interior lodgepole pine. Annotated bibliographies were compiled for intensive silvicultural treatments in white spruce, western hemlock, lodgepole pine and ponderosa pine stands. Vegetation management research needs in the province were analyzed, in preparation for an interagency research, development and demonstration program. Several new research projects were implemented in northern British Columbia to provide improved techniques for backlog reforestation, reducing vegetative competition and enhancing early growth performance of spruce regeneration. Field planting trials showed that fertilized white spruce grown in large containers established a 4-year growth differential over normal 2-0 bareroot stock. Seed physiology research trials with pelleted seed demonstrated the feasibility of mechanically sowing western red cedar seed, despite its irregular shape. This will enable nurseries to meet seedling demands for this species at a greatly reduced cost.

In tree improvement research, the interior spruce breeding program is now producing tested clones for the establishment of 1.5 generation orchards which will eventually supply some five seed orchard planning zones with genetically improved seed. A tree improvement program for interior Douglas-fir commenced with parental selections last spring. The concept of container seed orchards was brought much closer to reality with the demonstration of controlled flowering in western hemlock and, for the first time ever, in spruce.

Good progress is being made in the ecosystem classification program: to date, 60% of the province has been sampled and mapped. Operational reports or field guides are available for approximately 75% of the area sampled. The information is now used routinely in operations, and is being integrated into planning and management programs at all levels. The Integrated Wildlife Intensive Forestry Research program continued the use of radio telemetry for identification and evaluation of habitats used by elk in the Sayward Forest and deer in the Nanaimo River and Sayward areas. Other cooperative projects undertook similar work on habitats of mule deer around Williams Lake and grizzly bear on the north coast. The Fish/Forestry Interaction Program, begun in 1981 in cooperation with the British Columbia Ministry of Environment and Canada Department of Fisheries and Oceans, initiated four major studies during

1982-83: synoptic survey of watersheds, stream and forest rehabilitation methods, silviculture for unstable terrain and alternative logging techniques. Background information was collected to determine range research needs for the province. Work continued on the range fertilization demonstration project.

Technical support, including contributions to optimization schemes for nurseries and seed orchards as well as error reduction in lightning locator systems, was provided to other ministry programs.

The results of experiments and field studies conducted under the Research Program are published each year in the Forest Research Review.

Forest Protection Program

The basic objective of the Forest Protection Program is to protect the forest and range resources of the province from damage by wildfire and pests, including insects and diseases. Other important concerns are the protection of life and property, the preservation of other natural resource values and the use of prescribed fire to support resource management objectives. There are five activities within the Forest Protection Program -- administration; fire management; pest management; air operations; and planning, development, and research.

Forecast expenditure for 1982-83 was $25.3 million; actual expenditure was $19.0 million (see Table D-1).

For wildfire, the annual goal in the Five-Year Forest and Range Resource Program is to keep the area burned below 69 000 ha and the wood volume loss below 2.6 million m^3. In 1982-83, the actual area burned was 349 000 ha and the wood volume loss was 25.5 million m^3. The Kamloops and Nelson Forest Regions met basic fire control goals. The Prince Rupert, Prince George, and Cariboo Forest Regions exceeded both their area burned and timber loss goals. The Vancouver Forest Region exceeded only its timber loss target. The northern portions of the Prince Rupert and Prince George Forest Regions again experienced severe and extended drought conditions, making fires extremely difficult to control, and it was here that most of the area burned and timber losses occurred. Tables D-2 through D-4 provide wildfire and damage statistics for each forest region.

For pests, the objective in the five-year program is to establish a pest management organization in the ministry and to build an effective program to reduce wood losses caused by pests such as bark beetles, defoliators, mistletoes, and diseases. Staff are in place at headquarters, regions and many districts. Problems have been identified and activities are underway to reduce pest losses. Tables D-5 and D-6 indicate estimated damages due to major pests in the province.

Fire Management

Public awareness programs on fire prevention received increased emphasis and were implemented through all media. A film entitled "Black and Green" was jointly sponsored and developed with the Ministry of Environment. Its theme covers the benefits of prescribed fire in the management of natural resources. Most demands for prescribed burning in silviculture and fire hazard reduction were met, and the upward trend in the use of fire in range and wildlife management continued. In fire detection, 85 lookouts were manned for a total of 4,620 days during the fire season and 5,781 hours of aircraft patrol were flown. The use of airborne infrared scanners to detect spring hangover fires in log landings continued to be cost-effective. Out of 5,451 landings scanned, 315 hot landings were discovered and extinguished.

Fire suppression training modules were used extensively in training programs in the ministry and in technical forestry schools. Preparations were completed for a major effort to provide training and certification for firefighters in basic fire suppression theory and techniques through the Knowledge Network.

Pest Management

Emergency funding for the purpose of restricting the spread of bark beetles was limited to $1.2 million, which was spent on 38 survey, access and beetle suppression projects.

Further operational trials using virus and chemical insecticides were conducted to control the Douglas-fir tussock moth in the Kamloops Forest Region. Extensive surveys were made to delineate the boundaries of the infestation to predict probable spread in 1983 and facilitate the planning of further control operations. Demonstration areas were established in several areas of the province to study the effectiveness of mistletoe control, and work continued on a mistletoe damage assessment system. Intensive surveys were conducted in the Vancouver Forest Region for root diseases and leader weevils.

The ministry representative on the British Columbia Pesticide Control Committee reviewed and made recommendations to the Ministry of Environment on 313 applications for pesticide use, of which 129 were from the Ministry of Forests, 41 from the forest industry, and 143 from non-forestry users.

Air Operations

Total air operations expenditures of the ministry amounted to $21.8 million. The Fire Suppression Program spent $18.8 million, or 86% of this, on helicopter transport and supply services, air tanker bombing of fires, aerial fire detection patrols and air tanker bases (see Table D-7 for breakdown by forest region). The Forest Protection Program spent $0.6 million, predominantly for wages (shown under Air Operations in Table D-1), and for general protection flying. The remaining $2.4 million were spent on the flying requirements of other ministry programs.

The air tanker contractor is phasing out the medium-sized A-26 machines for the superior Firecats as planned. Capital works continued at the relocated Prince George air tanker base and aviation fuel storage tanks were purchased for the Williams Lake and Smithers bases.

Specialty crews, which rappel to the ground from hovering helicopters, controlled 90 forest fires in areas where access was difficult. They also constructed 25 helipads to facilitate supply to large fires. When not required for fire suppression, these crews constructed 41 helipads for bark beetle surveys, assisted in beetle trap tree felling operations, and undertook other forestry projects for districts.

There were no injuries or fatalities due to aviation accidents. There were four accidents, down significantly from the 14 in 1981.

Planning, Development and Research

The lightning location system was expanded from four to eleven sites, providing coverage for the southern two-thirds of the province. The network collects instantaneous lightning strike information for all forest regions and Victoria headquarters, enhancing fire detection and initial attack decisions.

The analysis of the fire ecological data collected in previous years was completed and reports with land management guidelines are being written for the Fort Nelson, Cassiar and Mackenzie TSAs.

Three man months were devoted to developing the Canadian Interagency Forest Fire Centre at Winnipeg. This Centre will facilitate the sharing of fire fighting resources on a national basis, to the benefit of participating provinces and territories.

Computer systems were developed to support regional pest management needs in storing and generating information on root rot, dwarf mistletoe, and bark beetles.

Regional planning activities were primarily devoted to five-year programs, fire control plans, and use of the management information systems to support administrative and operational requirements.

Fire Suppression Program

The ministry's responsibility to minimize damage from wildfires burning in the province's forest and range land is carried out through the Fire Suppression Program. This Program is closely linked to and supported by the Forest Protection Program, but is separately managed and funded.

Annual fire control objectives for area and timber burned were met in the Kamloops and Nelson Forest Regions. A discussion of the statistics is in the section dealing with the Forest Protection Program. Tables D-2 through D-4 provide wildfire statistics for each region.

Fire suppression costs for the year amounted to $42.9 million, a record high for the province (see Table D-7).

The 1982 fire season was characterized by drought and severe burning conditions in the northern one-third of the province with normal or below normal burning conditions in the remainder. Many fires in northern areas escaped control due to high winds and became large and costly to extinguish. In the Prince Rupert Forest Region, the number of fires and the area burned were 55% and 3600%, respectively, above their averages of the previous ten years. Similarly, in the Prince George Forest Region, the number of fires and the area burned were 29% and 340%, respectively, above their averages of the previous ten years.

At peak periods in the fire season, 1,790 men and 190 tractors and other heavy equipment were on firelines, supported by 67 helicopters and 17 air tankers. The air tanker fleet dropped 6.5 million litres of fire retardant on 353 fires.

Range Management Program

The objective of the Range Management Program is to supply forage for domestic and wild ungulates, while conserving the resource base so that future forage production will continue in a manner consistent with multiple use goals for Crown lands. In 1982-83, grazing permits and grazing licences for livestock authorized use of 989,555 animal unit months (AUMs). This again exceeded the goal of 934,000 AUMs in the Five-Year Forest and Range Resource Program but was 6,197 AUMs less than the previous year's authorized use.

Forecast expenditure for 1982-83 was $4.8 million; actual expenditure was $4.4 million (see Table E-1). The private sector contributed an additional $0.5 million through cost sharing agreements with the ministry for improvements on Crown rangeland.

Range Management staff also administered the expenditure of $2.9 million through Coordinated Resource Management Plans (CRMPs). These plans are funded through the Agriculture and Rural Development Subsidiary Agreement (ARDSA), a joint British Columbia-Canada initiative. Under ARDSA, 19 CRMPs were completed in 1982-83, for a total of 86 completed to date. During the year, 57 plans were being implemented, of which 9 were initiated in 1982-83. These plans cover 5.0 million ha and have contributed to the resolution of many problems resulting from multiple use of Crown range. Range improvements funded under ARDSA are not included in this report on the Range Management Program.

The Canada-British Columbia Employment Bridging Assistance Program, described in a special report in Section VII, funded additional range improvements which are not included in this report on the Range Management Program.

The North American cattle industry stabilized during the year, but both the population of cattle and cattle prices were below those of the previous year. An anticipated increase in the population of cattle did not occur, due to uncertainties about future markets. For example, beef's share of the meat market continued to drop marginally.

In British Columbia, range revenue from permits and licences for Crown range was $1.3 million in 1982-83, only slightly below the previous year (see Table E-2). The ground rent, $0.20 per AUM, was the same as in the previous year, but the fee, which is related to cattle prices of the previous year, decreased to $1.16 per AUM from $1.21 per AUM in 1981-82.

Grazing permits and grazing licences in 1982-83 are summarized in Table E-3. Utilization was 934,944 AUMs; 94% of the authorized use.

Hay cutting permits and hay cutting licences in 1982-83 are summarized in Table E-4. Most of the authorized hay cutting permits and hay cutting licences are for wetlands in the interior of the province. Utilization was only 57% of the authorized use, primarily due to high water tables resulting from heavy precipitation and poor haying conditions.

Range improvements on Crown land funded by the ministry during the year are shown in Table E-5.

Seeding was carried out on 11 374 ha of disturbed forest sites and on 1 072 ha for grassland rehabilitation. In biogeoclimatic zones where research has been conducted, seeding clearcuts and grazing cattle has not significantly affected forest production while cost-effectively increasing forage production for domestic and wild ungulates.

Weed control was principally for knapweed (497 ha) and thistle (127 ha). Knapweed control programs have been mainly for containment. Expenditure on fencing, water development and other improvements was primarily for construction of new improvements which enable better utilization of existing forage.

The average costs of seeding, fence construction and weed control are shown in Table E-6. Cost sharing with private operators reduced the cost to the ministry in some cases, especially in the seeding of community pastures in the Prince George Range District and fence construction in all districts.

Range inventory work included field sampling of 312 000 ha and processing of 27 000 ha for computer retrieval. Research continued on biological control of knapweed. A study was begun to evaluate range condition and trend information presently available to range managers, and to identify research needs regarding present and future range conditions. The Research Branch continued research projects on range topics.

Recreation Management Program

The objectives of the Recreation Management Program, within the ministry's integrated resource use framework, are to maintain and enhance recreational values (including the aesthetic values of the forest landscape) and to provide a system of sites and trails to facilitate public recreational use of Crown lands.

Forecast expenditure for 1982-83 was $4.3 million; actual expenditure was $4.0 million (see Table F-1). Restraint measures primarily affected the provision and maintenance of sites and trails.

Additional funding and labour was provided by federal-provincial job creation programs such as the Canada-British Columbia Employment Bridging Assistance Program and, to a lesser extent, by local volunteer groups. This additional work, valued at $1.7 million, was of major assistance in minimizing deterioration of facilities. It is not included in this report on the Recreation Management Program.

Resource Management

Expenditure reductions were kept to a minimum in the management function, due to the importance of identifying, protecting and managing recreational values. These values exist in areas which are visually or environmentally sensitive, and in features which have cultural, historical or other recreational significance.

The inventory of recreational and aesthetic values was continued. A recreation planning system was developed to encourage integrated resource management decisions in the ministry's other programs.

Site and Trail Maintenance

During 1982-83, 1,130 sites were maintained (see Table F-2). The length of trails maintained was reduced sharply, from 3 249 kilometres (km) in the previous year to 1 250 km in 1982-83. The estimated average cost of trail maintenance was between $100 and $130 per km.

Despite reductions in the number of sites and length of trails maintained, the number of visits increased by 9% to 1.8 million (see Table F-2). Summer use increased considerably, but winter use was lower due to a very light snow pack in much of the interior. As in previous years, over 80% of the user population consisted of provincial residents.

The cost of vandalism continued to increase. Repairs of sites and trails cost over $0.1 million and accounted for 8% of the total maintenance expenditure. Facilities near urban centres sustained more damage than those in remote locations. For example, in the Maple Ridge District, over one third of the maintenance budget was expended on repairs of vandalized facilities.

Site and Trail Development

Development of new sites and trails was limited.

IV. SUMMARY STATISTICAL TABLES

Note: All financial data for 1982-83 contained in sections IV and V are unaudited.

Table 1: Forecast and Actual Expenditure in 1982-83, by Program

Program	Forecast Expenditure[1]	Revised Forecast Expenditure[2]	Actual Expenditure[3]
	(thousands of dollars)		
Minister	170	157	170
Management	11,053	10,471	11,378
Finance/Administration	58,642	52,029	52,578
Harvesting	102,287	96,401	67,818
Silviculture	96,569	97,126	93,794
Research	9,985	8,519	9,227
Forest Protection	25,348	21,732	19,017
Fire Suppression	17,956	17,956	42,875
Range	4,820	4,692	4,421
Recreation	4,343	4,253	3,993
TOTAL	331,173	313,336	305,271

Notes:

1 Forecast expenditure in the Five-Year Forest and Range Resource Program, April 20, 1982.

2 Forecast expenditure:
- (i) less $18.312 million as part of the restraint program,
- (ii) less $3.0 million (Section 88) for the Employment Bridging Assistance Program, and
- (iii) plus $3.475 million for the Small Operator-Mechanized Site Preparation Program.

3 Includes all expenditures under the five-year program. Funds are from four sources:
- (i) Ministry of Forests' budget $149.296 million,
- (ii) Employment Development Account $ 13.479 million,
- (iii) Forest and Range Resource Fund $ 83.704 million,
- (iv) approved expenditures by licensees under Section 88 of the Forest Act $ 58.792 million.

Expenditure for Fire Suppression includes $10.0 million recovered from Ministry of Finance Vote 40 for contingencies.
An additional $4.699 million from the Employment Development Account expended as the provincial contribution to the Canada-British Columbia Employment Bridging Assistance Program (EBAP) through March 31, 1983 is not included in the actual expenditure of $305.271 million. EBAP was not part of the five-year program.

2

Table 2: Forecast and Actual Expenditure in 1982-83, by Forest Region

Forest Region	Forecast[1] Expenditure	Revised Forecast Expenditure[2]	Actual Expenditure[3]
	(thousands of dollars)		
Cariboo	23,433	22,891	23,564
Kamloops	27,780	27,124	28,002
Nelson	27,823	26,960	25,323
Prince George	46,018	45,012	51,966
Prince Rupert	35,758	35,386	35,170
Vancouver	56,009	55,012	54,347
Victoria	114,352	100,951	86,899
TOTAL	331,173	313,336	305,271

Notes: 1 Forecast expenditure implicit in the Five-Year Forest and Range Resource Program, April 20, 1982.

2 Forecast Expenditure:
(i) less $18.312 million as part of the restraint program,
(ii) less $3.0 million (Section 88) for the Employment Bridging Assistance Program, and
(iii) plus $3.475 million for the Small Operator-Mechanized Site Preparation Program.

3 Includes all expenditures under the five-year program. Funds are from four sources:
(i) Ministry of Forests' budget $149.296 million,
(ii) Employment Development Account $ 13.479 million,
(iii) Forest and Range Resource Fund $ 83.704 million,
(iv) approved expenditures by licensees under Section 88 of the Forest Act $ 58.792 million.

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An additional $4.699 million from the Employment Development Account expended as the provincial contribution to the Canada-British Columbia Employment Bridging Assistance Program (EBAP) through March 31, 1983 is not included in the actual expenditure of $305.271 million. EBAP was not part of the five-year program.

Table 3: Composition of Actual Expenditure in 1982-83, by Program

Program	Wages & Salaries: Permanent Staff	Wages & Salaries: Temporary & Aux. Staff	Materials, Supplies & Expenses	Contracts	Section 88	TOTAL
	(thousands of dollars)					
Minister	131	-	39	-	-	170
Management	9,429	301	1,241	407	-	11,378
Finance/Administration	16,198	6,997	26,056	3,327	-	52,578
Harvesting	31,566	9,274	5,575	6,105	15,298	67,818
Silviculture	9,324	13,756	9,291	19,753	41,670	93,794
Research	2,462	3,365	1,603	1,341	456	9,227
Forest Protection	5,410	6,744	3,239	2,362	1,262	19,017
Fire Suppression[1]	1,704	7,633	8,696	24,842	-	42,875
Range	2,010	922	1,222	267	-	4,421
Recreation	1,324	1,467	869	227	106	3,993
TOTAL	79,558	50,459	57,831	58,631	58,792	305,271

Notes: [1] Includes $10.0 million recovered from Ministry of Finance Vote 40 for contingencies.

Table 4: Composition of Actual Expenditure in 1982-83, by Forest Region

Forest Region	Wages & Salaries: Permanent Staff	Wages & Salaries: Temporary & Aux. Staff	Materials, Supplies & Expenses	Contracts	Section 88	TOTAL
	(thousands of dollars)					
Cariboo	7,089	5,074	2,630	4,714	4,057	23,564
Kamloops	8,225	5,559	2,382	4,925	6,911	28,002
Nelson	8,431	6,418	(1,315)[1]	7,418	4,371	25,323
Prince George	10,382	7,548	5,473	15,023	13,540	51,966
Prince Rupert	9,024	5,986	1,577	10,223	8,360	35,170
Vancouver	15,056	7,635	1,153	14,026	16,477	54,347
Victoria	21,351	12,239	45,931	2,302	5,076	86,899
TOTAL	79,558	50,459	57,831	58,631	58,792	305,271

Notes: [1] Credit results from recoveries from B.C. Hydro for the Revelstoke Reservoir Clearing Program amounting to $3.587 million.

Table 5: Forest and Range Revenue in 1982-83, by Forest Region[1]

Forest Region	Forest Revenue[2]	Range Revenue	Total Revenue
	(thousands of dollars)		
Cariboo	4,004	488	4,492
Kamloops	3,172	451	3,623
Nelson	3,008	106	3,114
Prince George	12,466	194	12,660
Prince Rupert	13,798	50	13,848
Vancouver	44,127	1	44,128
Victoria	6,755	1	6,756
TOTAL	87,330	1,291	88,621
(Revenue on cash basis[3]	92,926	1,291	94,217)

Notes: 1 Forest and range revenue in Tables 5, B-2 and E-2 is presented on an accrual basis.

2 Forest revenue is net of credits against stumpage which equaled $58.792 million in 1982-83. Gross Total Revenue totalled $147.413 million. Credits approved by program and forest region are shown in tables 3 and 4 under the column heading "Section 88".

3 Beginning with the 1980-81 Public Accounts, the government adopted a modified accrual basis of accounting. Effective April 1, 1983, the Ministry of Forests began recording its revenue according to this system. In Tables 5 and B-2, revenue on the former cash basis is shown in parentheses for comparison with previous annual reports. In future reports, revenue will only be shown on the accrual basis.

Table 6: Forest Land in British Columbia, by Forest Region[1]

Forest Region	Mature	Immature	NSR[2]	NC Brush[3]	Other[4]	TOTAL
	(thousands of hectares)					
Cariboo	3 534.8	2 686.4	155.4	19.0	80.5	6 476.1
Kamloops	2 241.9	1 974.9	130.7	19.7	20.5	4 387.7
Nelson	1 335.7	2 084.9	241.8	21.0	80.3	3 763.7
Prince George	7 840.7	8 235.7	196.7	627.0	396.7	17 296.8
Prince Rupert	8 700.7	2 340.7	344.0	75.1	204.1	11 664.6
Vancouver	2 181.6	1 450.6	88.2	6.0	98.2	3 824.6
TOTAL	25 835.4	18 773.2	1 156.8	767.8	880.3	47 413.5

Notes: 1 Source: Forest and Range Resource Analysis Technical Report, March 1980.
Excludes:
(i) Crown forest land in old temporary tenures and timber licences which are outside tree farm licences,
(ii) private forest land outside tree farm licences, and
(iii) federal forest land.

2 Not Satisfactorily Restocked. Stands which have been disturbed over 75 per cent by fire, logging or other causes and have not restocked with sufficient trees of commercial species.

3 Non-Commercial Brush. Areas that have been invaded and covered by brush and non-commercial species.

4 Includes non-productive timber, non-commercial timber, and residual stands following logging.

V. DETAILED STATISTICAL TABLES

Note: Totals in certain tables are not equal to the sum of their components due to rounding.

Table A-1: Finance and Administration Expenditure in 1982-83, by Forest Region

Forest Region	Financial	Personnel	Systems	Legal & Administrative	Technical Services	TOTAL
	(thousands of dollars)					
Cariboo	745	148	78	266	2,315	3,552
Kamloops	1,182	103	28	211	2,163	3,687
Nelson	931	143	31	418	2,944	4,467
Prince George	1,212	144	128	228	3,461	5,173
Prince Rupert	1,068	181	80	311	2,667	4,307
Vancouver	1,334	143	67	536	4,053	6,133
Victoria	4,631	1,398	3,045	1,215	14,970	25,259
TOTAL	11,103	2,260	3,457	3,185	32,573	52,578

Table A-2: Ministry of Forests Personnel (Permanent Staff) in 1982-83, by Program

Program	April 1, 1982			March 31, 1983		
	Positions	Staff	Vacancies	Positions	Staff	Vacancies
Minister	5	5	-	5	5	-
Management	284	264	20	283	269	14
Finance/Administration	947	731	216	932	787	145
Harvesting	1,303	1,154	149	1,322	1,152	170
Silviculture	421	296	125	419	380	39
Research	89	80	9	90	82	8
Forest Protection	222	187	35	217	198	19
Range	86	72	14	88	71	17
Recreation	54	44	10	55	50	5
TOTAL	3,411	2,833	578	3,411	2,994	417

Table A-3: Ministry of Forests Personnel (Permanent Staff) and Staff Turnover in 1982-83, by Forest Region

Forest Region	April 1, 1982			Staff Turnover		March 31, 1983		
	Positions	Staff	Vacancies	Separated[1]	Hired	Positions	Staff	Vacancies
Cariboo	303	258	45	9	16	300	265	35
Kamloops	348	292	56	20	33	351	305	46
Nelson	339	295	44	14	39	354	320	34
Prince George	468	377	91	21	32	465	388	77
Prince Rupert	409	298	111	15	44	400	327	73
Vancouver	661	555	106	58	84	659	581	78
Victoria	883	758	125	51	101	882	808	74
TOTAL	3,411	2,833	578	188	349	3,411	2,994	417

Notes: [1] Includes resignation, retirement, transfer, death and dismissal.

Table 8-1: Harvesting Expenditure in 1982-83, by Forest Region

Forest Region	Planning, Inventory & Research	Valuation	Timber Management	Engineering & Roads	Scaling	TOTAL
	(thousands of dollars)					
Cariboo	779	819	1,321	2,313	729	5,961
Kamloops	763	628	1,722	3,058	1,174	7,345
Nelson	1,706	576	1,801	2,921	933	7,937
Prince George	1,245	860	2,058	6,643	1,536	12,342
Prince Rupert	1,506	837	1,607	3,524	1,723	9,197
Vancouver	1,512	2,529	2,827	3,364	3,952	14,184
Victoria	4,797	2,097	1,400	2,558	-	10,852
TOTAL	12,308	8,346	12,736	24,381	10,047	67,818

Table B-2: Forest Revenue in 1982-83, by Forest Region

Forest Region	Annual Rents	Stumpage: Gross Stumpage	Stumpage: Less Credits[1]	Stumpage: Net Stumpage	Royalty	Scaling	Interest	Other[2]	TOTAL
				(thousands of dollars)					
Cariboo	832	6,519	4,173	2,346	56	651	72	47	4,004
Kamloops	763	9,484	7,786	1,698	48	502	81	80	3,172
Nelson	1,601	5,355	4,373	982	32	343	16	34	3,008
Prince George	3,132	22,702	15,229	7,473	78	824	375	584	12,466
Prince Rupert	3,045	18,023	9,038	8,985	720	886	124	38	13,798
Vancouver	11,007	44,494	18,193	26,301	4,136	1,383	186	1,114	44,127
Victoria	941	306	-	306	-	-	1	5,507	6,755
TOTAL	21,321	106,883	58,792	48,091	5,070	4,589	855	7,404	87,330
(Revenue on cash basis	21,247	112,019	58,792	53,227	5,070	5,747	1,230	6,405	92,926)

Notes:
1 The $5.076 million in credits for nursery and seed operations administered by Victoria and shown in Table 4 have been offset against stumpage revenue earned in the forest regions.
2 Includes forest revenue from forest protection agreements, recoveries of $5.000 million from the British Columbia - Canada Intensive Forest Management Subsidiary Agreement and other miscellaneous sources.
3 Beginning with the 1980-81 Public Accounts, the government adopted a modified accrual basis of accounting. Effective April 1, 1983, the Ministry of Forests began recording its revenue according to this system. In Tables 5 and B-2, revenue on the former cash basis is shown in parentheses for comparison with previous annual reports. In future reports, revenue will only be shown on the accrual basis.

Table B-3: Average Stumpage Prices Received on Timber Billed from Tree Farm Licences, Forest Licences, Timber Sale Harvesting Licences and Timber Sale Licences other than Small Business Sales in 1982-83, by Species and Forest Region

Forest Region	BALSAM		CEDAR		CYPRESS		FIR	
	Volume (000 m^3)	Price ($/$m^3$)	Volume (000 m^3)	Price ($/$m^3$)	Volume (000 m^3)	Price ($/$m^3$)	Volume (000 m^3)	Price ($/$m^3$)
Cariboo	315	.90	162	1.26	-	-	1 149	1.06
Kamloops	688	.95	310	1.50	*	.91	995	1.12
Nelson	343	.97	299	1.58	-	-	436	1.16
Prince George	1 037	.97	51	1.42	-	-	161	1.06
Prince Rupert (C)	345	2.19	528	2.68	36	9.95	71	3.62
Prince Rupert (I)	620	.93	61	1.90	*	1.23	*	.88
Vancouver (C)	2 065	2.91	2 483	3.68	245	9.28	1 209	4.89
Vancouver (I)	48	2.41	34	3.28	4	5.43	80	2.46
TOTAL	5 462	1.78	3 929	3.05	285	9.31	4 100	2.29

Forest Region	HEMLOCK		LARCH		LODGEPOLE PINE		SPRUCE	
	Volume (000 m^3)	Price ($/$m^3$)	Volume (000 m^3)	Price ($/$m^3$)	Volume (000 m^3)	Price ($/$m^3$)	Volume (000 m^3)	Price ($/$m^3$)
Cariboo	12	.86	-	-	2 555	.82	1 745	1.03
Kamloops	67	.48	84	1.06	2 313	.92	1 897	1.10
Nelson	159	.26	187	1.29	1 284	.45	1 128	1.10
Prince George	7	.88	*	.87	3 626	.92	7 086	1.07
Prince Rupert (C)	1 178	2.09	-	-	*	2.16	539	10.47
Prince Rupert (I)	353	.81	-	-	1 374	.91	1 073	1.03
Vancouver (C)	4 327	2.75	-	-	5	1.17	197	14.77
Vancouver (I)	48	2.59	-	-	16	1.03	15	1.45
TOTAL	6 151	2.42	271	1.22	11 173	.84	13 680	1.63

Table B-3: (Continued)

Forest Region	WHITE PINE Volume (000 m^3)	WHITE PINE Price ($/$m^3$)	OTHER SPECIES Volume (000 m^3)	OTHER SPECIES Price ($/$m^3$)	ALL SPECIES Volume (000 m^3)	ALL SPECIES Price ($/$m^3$)
Cariboo	*	.99	*	.89	5 937	.95
Kamloops	24	2.98	37	2.42	6 415	1.05
Nelson	100	1.77	17	1.26	3 953	.91
Prince George	*	1.10	1	.87	11 968	1.02
Prince Rupert (C)	*	2.01	5	1.12	2 702	4.03
Prince Rupert (I)	-	-	79	.52	3 561	.95
Vancouver (C)	18	1.93	5	1.62	10 555	3.62
Vancouver (I)	2	2.15	*	.96	246	2.48
TOTAL	144	1.99	144	1.16	45 338	1.79

Notes: 1 Volumes exclude firmwood rejects and waste.
2 * indicates volume less than 500 m^3.
3 Average stumpage prices do not reflect the effect of credits against stumpage.

Table B-4: Stumpage Revenue from the Small Business Enterprise Program in 1982-83, by Forest Region

Forest Region	Volume Billed[1] ($000\ m^3$)	Stumpage Appraised[2]	Bonus Bid	Stumpage Received	Stumpage Received as a % of Stumpage Appraised
		- -(thousands of dollars)- -			(%)
Cariboo	421	375	730	1 105	294
Kamloops	192	187	750	936	502
Nelson	186	187	212	399	214
Prince George	765	663	2 485	3 148	475
Prince Rupert:					
Coast	128	356	33	389	109
Interior	573	527	916	1 443	274
Vancouver	256	786	1 177	1 964	250
TOTAL	2 521	3 081	6 303	9 384	305

Notes: 1 Excludes firmwood rejects and waste.
2 Appraised stumpage was set at prescribed minimum rates for the period June 1, 1980 through November 30, 1982.

Table B-5: Total Volume of All Products Billed[1] in 1982-83, by Forest Region

Land Status	Cariboo	Kamloops	Nelson	Prince George	Prince Rupert	Vancouver	TOTAL
	(thousands of cubic meters)						
Crown Land							
Tree Farm Licences[2]	143	793	897	378	1 402	5 788	9 401
Forest Licences	5 655	5 003	2 988	8 612	4 360	4 509	31 127
Timber Sale Harvesting Licences	31	268	284	2 143	208	33	2 967
Timber Sale Licences	646	591	768	1 706	1 039	750	5 500
Licences to Cut	357	53	53	931	121	76	1 590
Timber Licences	0	175	109	0	439	3 194	3 917
Old Temporary Tenures[3]	0	5	8	0	97	1 363	1 473
Other[4]	112	174	55	50	49	384	825
Sub-Total	6 944	7 061	5 162	13 821	7 715	16 096	56 800
Private Land[5]	246	202	479	300	152	2 492	3 871
Other[6]	93	18	8	3	111	38	271
TOTAL	7 283	7 282	5 649	14 124	7 978	18 626	60 942

Notes:
1 Includes firmwood rejects.
2 Includes schedule B lands only.
3 Includes special timber licences, timber leases, pulp licences, pulp leases and timber berths.
4 Includes woodlot licences, right-of-way, beachcomb, trespass and misc.
5 All Crown granted lands.
6 Federal lands and Indian Reserves.

Table B-6: Species Cut, All Products,[1,2] in 1982-83, by Forest Region

Forest Region	Balsam	Cedar	Cypress	Fir	Hemlock	Larch
	(thousands of cubic meters)					
Cariboo (C)	-	-	-	-	-	-
Prince Rupert (C)	362	724	57	106	1 487	-
Vancouver (C)	3 307	4 142	400	2 739	7 287	*[3]
TOTAL, Coast	3 669	4 866	458	2 845	8 774	*
Cariboo (I)	352	188	-	1 458	14	-
Kamloops	750	421	*	1 230	101	89
Nelson	409	693	-	792	356	226
Prince George	1 151	62	-	204	8	*
Prince Rupert(I)	705	87	*	*	398	-
Vancouver (I)	52	40	4	98	57	-
TOTAL, Interior	3 419	1 491	4	3 782	935	315
TOTAL	7 088	6 357	462	6 626	9 709	315

Table B-6: (continued)

Forest Region	Lodgepole Pine	Spruce	White Pine	Other Species	Totals
	(thousands of cubic meters)				
Cariboo (C)	-	-	-	-	-
Prince Rupert (C)	1	735	*	88	3 561
Vancouver (C)	7	280	46	126	18 334
TOTAL, Coast	8	1 015	46	214	21 895
Cariboo (I)	3 236	2 000	*	34	7 283
Kamloops	2 496	2 056	33	106	7 282
Nelson	1 543	1 421	131	77	5 649
Prince George	4 284	8 384	*	31	14 124
Prince Rupert (I)	1 700	1 379	-	149	4 417
Vancouver (I)	16	15	2	8	292
TOTAL, Interior	13 275	15 256	166	405	39 047
TOTAL	13 283	16 271	212	619	60 942

Notes:
1 Includes firmwood rejects.
2 Includes all harvesting on Crown, private and federal lands and Indian Reserves.
3 Indicates volume less than 500 m^3.

Table B-7: Area Harvested[1] in 1982-83, by Forest Region

Forest Region	Clear Cutting	Selective Cutting	TOTAL
	(hectares)		
Cariboo	18 274	11 685	29 959
Kamloops	15 904	6 038	21 942
Nelson	11 678	8 386	20 064
Prince George	43 486	162	43 648
Prince Rupert	20 190	836	21 026
Vancouver	24 898	635	25 533
TOTAL	134 430	27 742	162 172

Notes: 1 Includes all harvesting on Crown lands. Excludes harvesting on private lands except private lands within tree farm licences, certified tree farms and woodlot licences.

Table B-8: Export of Logs from British Columbia in 1982-83, by Species

Species	Exports Under Permit[1]	Other Exports[2]	Total
	(thousands of cubic meters)		
Balsam	179	12	191
Cedar	77	12	89
Cypress	41	16	56
Douglas-fir	352	218	570
Hemlock	263	33	296
Lodgepole Pine	38	*[3]	38
Spruce	228	21	249
Other Softwood	2	2	4
Cottonwood	50	57	107
Other Hardwood	9	12	21
TOTAL	1 238	382	1 621

Notes:
1 Export permit granted under Section 137 of the Forest Act. Logs harvested from provincial Crown land, private land within a tree farm licence area, and from private land granted by the Crown after March 12, 1906.
2 No export permit required under the Forest Act. Logs harvested from private land that was granted by the Crown prior to March 13, 1906, and is not within a tree farm licence area, and logs harvested from federal land and Indian Reserves.
3 * indicates volume less than 500 m^3.

Table B-9: Small Business Enterprise Program in 1982-83, by Forest Region

Forest Region	Registrants[1]		Sales		Volume Sold[4]	Value[5]
	Cat.1[2]	Cat.2[3]	Cat.1	Cat.2	($000 m^3$)	($,000)
	(number of)					
Cariboo	229	58	102	35	552	1 051
Kamloops	306	107	62	20	422	2 376
Nelson	314	153	53	38	460	1 200
Prince George	296	84	25	13	1 282	5 106
Prince Rupert	448	181	115	39	1 378	3 441
Vancouver	584	120	49	8	309	2 951
TOTAL	2 177	703	406	153	4 403	16 125

Notes:
1 On March 31, 1983.
2 Category 1: Registrants who, at the time of application, did not own a timber processing facility.
3 Category 2: Registrants who, at the time of application, owned a timber processing facility.
4 Tendered volume.
5 Value based upon appraised price at time of sale plus bonus bid, if any.

Table B-10: Number of Tenures as at March 31, 1983, by Forest Region

Tenure	Cariboo	Kamloops	Nelson	Prince George	Prince Rupert	Vancouver	TOTAL
	(number of licences)						
Tree Farm Licences[1]	1	7	5	1	6	16	33
Farm Woodlot and Woodlot Licences	11	2	3	6	4	9	35
Timber Sale Harvesting Licences	-	-	-	6	1	-	7
Forest Licences	17	28	25	26	33	48	177
Timber Sale Licences[2]	-	-	5	4	-	-	9
Timber Sale Licences (Major)	22	47	31	38	24	50	212
Timber Sale Licences (Minor)							
SBEP[3]	181	114	165	72	327	129	988
Other[4]	24	43	127	8	5	36	243
Special Timber Sale Licences[5]	-	-	2	-	-	1	3
TOTAL	256	241	363	161	400	289	1,707

Notes:
1 Tree Farm Licences 2, 25 and 39 are partly in both Vancouver and Prince Rupert Forest Regions.
2 Replaceable Timber Sale Licence not rolled over.
3 Small Business Enterprise Program.
4 Licences sold from the Forest Service Reserve and within tree farm licences for which there is no commitment. These sales include salvage sales for timber damaged by fire, insects or wind, and cash sales for special forest products such as shake and shingle bolts.
5 Non-replaceable licences, but provided for in the apportionment plan: sales in Nelson from Forest Service Reserve; sale in Vancouver from other uncommitted volume.

Table B-11: Commitment as at March 31, 1983, by Forest Region

Tenure	Cariboo	Kamloops	Nelson	Prince George	Prince Rupert	Vancouver	TOTAL
	(thousands of m^3)						
Tree Farm Licences[1]	119	771	1 641	437	4 191	12 109	19 269
Farm Woodlot and Woodlot Licences	2	-	1	2	1	2	8
Timber Sale Harvesting Licences	-	-	-	3 563	25	-	3 588
Forest Licences	5 277	6 042	3 809	9 729	6 643	6 254	37 754
Timber Sale Licences[2]	-	-	6	2	-	-	8
Timber Sale Licences (Major)	175	91	70	224	97	181	838
Timber Sale Licences (Minor)							
SBEP[3]	473	717	444	1 388	1 004	846	4 872
Other[4]	-	-	-	-	-	-	-
Special Timber Sale Licences[5]	-	-	50	-	-	65	115
TOTAL	6 046	7 622	6 020	15 345	11 961	19 458	66 452

Notes:
1 Tree Farm Licences 2, 25 and 39 are partly in both Vancouver and Prince Rupert Forest Regions.
2 Replaceable Timber Sale Licence not rolled over.
3 Small Business Enterprise Program.
4 Licences sold from the Forest Service Reserve and within tree farm licences for which there is no commitment. These sales include salvage sales for timber damaged by fire, insects or wind, and cash sales for special forest products such as shake and shingle bolts.
5 Non-replaceable licences, but provided for in the apportionment plan: sales in Nelson from Forest Service Reserve; sale in Vancouver from other uncommitted volume.

Table C-1: Silviculture Expenditure in 1982-83, by Forest Region

Forest Region	Administration	Basic	Intensive	Nursery Operations	Seed Operations	TOTAL
	(thousands of dollars)					
Cariboo	1,332	3,147	636	-	178	5,293
Kamloops	2,026	6,223	560	-	209	9,018
Nelson	1,644	2,860	765	-	34	5,303
Prince George	2,168	9,808	779	-	395	13,150
Prince Rupert	1,664	5,278	1,851	-	122	8,915
Vancouver	4,641	7,935	12,908	-	809	26,293
Victoria	1,665	263	403	20,718	2,773	25,822
TOTAL	15,140	35,514	17,902	20,718	4,520	93,794

Table C-2: Surveys of Natural Restocking[1] on Crown Land in 1982-83, by Forest Region

Forest Region	Area Surveyed[2]	Area Satisfactorily Stocked	Area Not Satisfactorily Stocked	Area Satisfactorily Stocked
	(hectares)			(%)
Cariboo	18 955	12 138	6 590	64
Kamloops	27 019	13 455	13 281	50
Nelson	23 308	8 176	14 557	35
Prince George	37 123	16 809	20 229	45
Prince Rupert	14 104	8 846	5 072	63
Vancouver	49 454	33 432	13 999	68
TOTAL	169 963	92 856	73 728	55

Notes: 1 Includes surveys of natural restocking on Crown land within tree farm licences.
2 Includes 3 379 hectares of land classified as non-productive.

Table C-3: Surveys of Plantations[1] on Crown Land in 1982-83, by Forest Region

Forest Region	Area Surveyed[2]	Area Satisfactorily Stocked	Area Not Satisfactorily Stocked	Area Satisfactorily Stocked
	(hectares)			(%)
Cariboo	22 272	22 020	252	99
Kamloops	8 933	8 046	887	90
Nelson	8 494	7 277	1 174	86
Prince George	16 818	13 784	2 975	82
Prince Rupert	8 666	7 195	1 410	83
Vancouver	31 677	27 558	4 017	87
TOTAL	96 860	85 880	10 715	89

Notes: 1 Includes surveys of plantations on Crown land within tree farm licences. Based on surveys made 1 to 3 years after planting.

2 Includes 265 hectares of land classified as non-productive.

Table C-4: Site Preparation for Natural Restocking on Crown Land in 1982-83, by Forest Region

Treatment	Cariboo	Kamloops	Nelson	Prince George	Prince Rupert	Vancouver	TOTAL
	(hectares)						
Broadcast Burned	-	36	100	-	-	-	136
Bunched (Piled) and Burned	-	98	250	38	-	-	386
Windrowed and Burned	-	259	-	77	25	-	361
Spot Burned	-	-	3 124	-	-	-	3 124
Drag Scarified	336	339	1 347	3 587	610	-	6 219
Blade Scarified	-	72	324	-	-	-	396
Bunched Only	-	19	40	-	-	-	59
Windrowed Only	-	93	-	-	-	-	93
Other Mechanical[1]	138	16	-	-	-	-	154
Residual Falling Only (Including Snags)	-	-	163	-	-	-	163
Sub-Total	474	932	5 348	3 702	635	-	11 091
No Further Treatment[2]	5 888	2 879	-	-	-	800	9 567
TOTAL	6 362	3 811	5 348	3 702	635	800	20 658

Notes: 1 Includes use of a Marden brush chopper, Leno scarifier, V-plow, disc trencher, Bracke scarifier.
2 Land which was surveyed and found not to require treatment to promote natural restocking.

Table C-5: Site Preparation for Planting on Crown Land in 1982-83, by Forest Region

Treatment	Cariboo	Kamloops	Nelson	Prince George	Prince Rupert	Vancouver	TOTAL
				(hectares)			
Broadcast Burned	3 806	2 151	681	11 115	4 515	2 874	25 142
Bunched (Piled) and Burned	635	1 579	103	4 858	18	36	7 229
Windrowed and Burned	-	325	144	583	141	-	1 193
Spot Burned	-	273	675	198	20	425	1 591
Drag Scarified	19	-	85	139	333	-	576
Blade Scarified	-	685	253	5 275	20	-	6 233
Bunched Only	733	908	14	588	-	19	2 262
Windrowed Only	-	140	-	463	-	17	620
Other Mechanical[1]	250	1 122	215	1 425	2 302	-	5 314
Residual Falling Only (Including Snags)	21	860	75	360	20	3	1 339
Snag Falling Only	41	-	-	-	-	-	41
Other[2]	-	-	-	30	-	-	30
Sub-Total	5 505	8 043	2 245	25 034	7 369	3 374	51 570
No Further Treatment[3]	6 084	950	-	-	-	7 159	14 193
TOTAL	11 589	8 993	2 245	25 034	7 369	10 533	65 763

Notes: 1 Includes use of a Marden brush chopper, Leno scarifier, V-plow, disc trencher, Bracke scarifier, ripper plow and C & H plow.
2 Includes knockdown of trees over 3 metres high.
3 Land which was surveyed and found not to require treatment prior to planting.

Table C-6: Crown Land Planted in 1982-83, by Forest Region

Forest Region	Area Planted			Trees Planted		
	Basic	Intensive	Total	Basic	Intensive	Total
	- - - -(hectares)- - - -			- -(thousands of trees)-		
Cariboo	7 074	345	7 419	8,706	384	9,090
Kamloops	12 452	2 621	15 073	15,156	3,481	18,637
Nelson	5 262	870	6 132	6,825	1,025	7,850
Prince George	18 599	2 238	20 837	22,208	2,660	24,868
Prince Rupert	12 011	1 214	13 225	15,056	1,364	16,420
Vancouver	20 456	2 451	22 907	18,198	2,611	20,809
TOTAL	75 854	9 739	85 593	86,149	11,525	97,674

Table C-7: Brushing and Weeding on Crown Land in 1982-83, by Forest Region

Forest Region	Treatment		TOTAL
	Manual	Chemical	
	(hectares)		
Cariboo	-	-	-
Kamloops	3	-	3
Nelson	290	-	290
Prince George	-	-	-
Prince Rupert	68	53	121
Vancouver	1 815	2 194	4 009
TOTAL	2 176	2 247	4 423

Table C-8: Crown Land Improved in 1982-83, by Forest Region

Forest Region	Spacing[1]	Fertilization	Site Rehabilitation	Conifer Release	Commercial Thinning
	(hectares)				
Cariboo	531	-	-	-	-
Kamloops	311	-	445	8	-
Nelson	635	-	113	-	-
Prince George	-	-	1 092	-	-
Prince Rupert	1 526	-	366	21	-
Vancouver	12 846	5 759	766	963	-
TOTAL	15 849	5 759	2 782	992	-

Notes: 1 Includes juvenile spacing and sanitation spacing.

Table C-9: Average Cost[1] of Silviculture Treatments on Crown Land in 1982-83, by Forest Region

	Cariboo	Kamloops	Nelson	Prince George	Prince Rupert	Vancouver	B.C.
	(dollars per hectare)						
Basic Silviculture							
Site Preparation for Natural Restocking	125	184	54	118	90	-	91
Site Preparation for Planting	133	211	112	146	120	124	148
Planting[2]	292	274	328	262	288	263	276
Brushing and Weeding:							
Manual	-	430	384	-	604	268	294
Chemical[3]	-	-	-	-	230	193	194
Intensive Silviculture							
Backlog Planting[2]	203	269	305	255	256	255	262
Spacing[4]	263	162	239	-	682	661	623
Fertilization[5]	-	-	-	-	-	227	227
Site Rehabilitation	-	289	420	248	271	947	457
Conifer Release	-	866	-	-	402	495	496
Commercial Thinning	-	-	-	-	-	-	-

Notes:
1 Based on on-site operating cost (equipment, transportation and wages for crew and crew boss). Does not include overhead cost (initial field inspection, planning and prescription, site delineation, general supervision of project and final inspection to check quality). Weighted by the area treated, where applicable.
2 Excludes cost of seedlings.
3 Includes cost of herbicides.
4 Includes juvenile spacing and sanitation spacing.
5 Includes cost of fertilizers.

Table C-10: Seed Additions, Withdrawals and Inventory in 1982-83, by Species[1]

Native Species	Initial Inventory[2]	Additions		Withdrawals			Final Inventory[5]
		Natural Collections	Seed Orchard Collections	Ministry Nurseries[3]	Private & Licensee Nurseries[3]	Other[4]	
	(kilograms)						
Cedar, Western Red	316.1	137.1	0.0	11.6	2.3	0.1	439.2
Cedar, Yellow	18.1	0.0	0.0	0.7	1.2	0.0	16.2
Douglas-fir	10 382.3	1 946.6	234.0	337.8	241.7	25.6	11 957.8
Fir, Alpine	792.4	26.0	0.0	2.3	0.0	0.9	815.2
Fir, Amabilis	3 437.7	1 752.0	0.0	275.9	29.8	51.0	4 833.0
Fir, Grand	584.9	292.3	0.0	30.3	8.8	0.8	837.3
Hemlock, Mountain	96.5	51.6	0.0	0.3	0.7	0.1	147.0
Hemlock, Western	454.8	443.4	0.0	9.3	12.9	5.1	870.9
Larch, Western	252.2	29.1	0.0	11.8	2.2	0.2	267.1
Pine, Lodgepole	3 864.2	311.2	1.4	194.4	85.8	2.5	3 894.1
Pine, Ponderosa	569.9	0.0	0.0	14.2	3.3	3.8	548.6
Spruce, Engelmann	3 313.6	1 140.8	0.0	120.4	35.5	3.3	4 295.2
Spruce, Sitka	865.0	0.2	0.0	10.6	2.5	4.2	847.9
Spruce, White	2 320.1	337.9	0.0	106.6	40.2	5.1	2 506.1
Spruce Hybrids[6]	5 941.7	1 002.8	0.0	195.0	69.8	3.2	6 676.5
Miscellaneous	133.3	17.2	0.0	3.9	0.2	0.1	146.3
TOTAL	33 342.6	7 488.2	235.4	1 325.1	536.9	106.0	39 098.4

Notes:
1 Excludes approximately 150 kilograms of seed from exotic species.
2 April 1, 1982. Also reflects taxonomic reclassification of several spruce seedlots during 1982-83.
3 For sowing of seedlings primarily in 1983-84.
4 For direct seeding, export, research, etc.
5 March 31, 1983.
6 Includes natural crosses between Sitka, Engelmann, white and black spruce.

Table D-1: Forest Protection Program Expenditure in 1982-83, by Forest Region

Forest Region	Administration	Fire Management	Pest Management	Air Operations	Planning, Development & Research	TOTAL
	(thousands of dollars)					
Cariboo	426	1,143	828	135	13	2,545
Kamloops	1,190	1,194	713	20	26	3,143
Nelson	823	1,198	1,345	71	37	3,474
Prince George	913	670	700	86	35	2,404
Prince Rupert	764	919	687	71	30	2,471
Vancouver	891	1,518	535	29	25	2,998
Victoria	342	445	655	59	481	1,982
TOTAL	5,349	7,087	5,463	471	647	19,017

Table D-2: Number and Causes of Wildfires[1] in 1982-83, by Forest Region

Cause	Cariboo		Kamloops		Nelson		Prince George		Prince Rupert		Vancouver		TOTAL	
	1982-1983	Ten-Year Average[2]	1982-1983	Ten-Year Average	1982-1983	Ten-Year Average	1982-1983	Ten-Year Average	1982-1983	Ten-Year Average	1982-1983	Ten-Year Average	1982-1983	Ten-Year Average
	(number of wildfires)													
Lightning	83	98	248	256	151	280	276	183	73	65	115	92	946	974
Recreational[3]	9	20	43	65	26	36	25	29	38	22	69	49	210	221
Railroads	2	6	21	40	23	30	11	9	1	3	19	16	77	104
Smokers	19	29	62	100	21	49	18	22	32	18	66	72	218	290
Brush Burning[4]	12	18	27	21	13	16	36	27	24	10	22	13	134	105
Range Burning	21	21	6	7	2	1	5	14	9	1	2	1	45	45
Construction[5]	0	3	1	5	2	5	4	5	0	4	3	6	10	28
Industrial[6]	4	23	20	48	21	30	24	28	16	23	42	40	127	192
Incendiary	97	67	15	26	14	7	38	14	29	5	13	5	206	124
Misc. Known Causes	38	43	64	88	34	49	16	19	50	24	24	32	226	255
Unknown Causes	1	2	0	2	1	2	1	1	0	1	3	1	6	9
TOTAL	286	330	507	658	308	505	454	351	272	176	378	327	2,205	2,347

Notes:
1 Includes all wildfires in British Columbia.
2 Based on 1972 through 1981.
3 Campers, hunters, fishermen, etc.
4 Excluding railway or right-of-way clearing.
5 Road, power, telephone, pipeline and right-of-way construction.
6 Logging, milling and other industries.

Table D-3: Area Burned by Wildfires[1] in 1982-83, by Forest Region

Forest Region	Merchantable Timber		Immature Timber		Other Cover[2]		TOTAL	
	1982-1983	Ten-Year Average[3]	1982-1983	Ten-Year Average	1982-1983	Ten-Year Average	1982-1983	Ten-Year Average
	(hectares)							
Cariboo	3 435	640	307	492	879	664	4 621	1 796
Kamloops	359	996	29	876	462	1 119	850	2 991
Nelson	811	942	80	530	500	986	1 391	2 458
Prince George	51 092	6 770	18 707	4 742	45 438	14 504	115 237	26 016
Prince Rupert	120 458	2 965	84 639	1 053	20 300	2 015	225 397	6 033
Vancouver	565	467	192	504	410	735	1 167	1 706
TOTAL	176 720	12 780	103 954	8 197	67 989	20 023	348 663	41 000

Notes:
1 Includes all wildfires in British Columbia.
2 Includes wildfires on Not Satisfactorily Restocked (NSR) forest land, Non-Commercial (NC) forest land, grazing land, pasture land, and non-productive sites. Also includes wildfires less than 4 hectares in area.
3 Based on 1972 through 1981.

Table D-4: Timber Burned by Wildfires[1] in 1982-83, by Forest Region

Forest Region	Merchantable Timber[2]	Immature Timber[3]	TOTAL
	(thousands of m^3)		
Cariboo	523	22	545
Kamloops	22	1	23
Nelson	44	4	48
Prince George	3 766	1 087	4 853
Prince Rupert	15 924	3 711	19 635
Vancouver	398	9	407
TOTAL	20 676	4 835	25 511

Notes:
1 Includes all wildfires in British Columbia.
2 Before salvage. Burned timber is salvaged wherever practical.
3 Estimates. Based on species and generalized information on age and site. Assumes complete mortality.

Table D-5: Area under Attack by Forest Pests[1] in 1982-83, by Forest Region

Forest Region	Bark Beetles[2]	Defoliators	TOTAL[3]
	(hectares)		
Cariboo	232 750	500	233 250
Kamloops	22 050	29 000	51 050
Nelson	45 000	13 450	58 450
Prince George	59 000	0	59 000
Prince Rupert	30 500	90 000	120 500
Vancouver	500	120	620
TOTAL	389 800	133 070	522 870

Notes:
1 Best available estimates of current annual losses. Accuracy varies, depending on the pest.
2 Area of forests killed by bark beetles is estimated from aerial surveys in 1982. Represents trees killed in 1981.
3 Many more pests are endemic throughout most forests. Estimates of area under attack are meaningless for these pests without detailed measures of the intensity of infestation.

Table D-6: Timber Damaged by Forest Pests[1] in 1982-83, by Forest Region

Forest Region	Bark Beetles	Defoliators	Dwarf Mistletoes	Root Diseases	TOTAL[2]
	(thousands of m^3)				
Cariboo	14 185	2	680	110	14 977
Kamloops	257	289	325	990	1 861
Nelson	1 840	5	273	585	2 703
Prince George	2 003	0	400	240	2 643
Prince Rupert	1 830	15	1 200	205	3 250
Vancouver	1	10	460	1 310	1 781
TOTAL	20 116	321	3 338	3 440	27 215

Notes: 1 Best available estimates of current annual losses. Accuracy varies, depending on the pest. Only the major forest pests of British Columbia are included. Volumes are estimated before salvage. Attacked timber is salvaged wherever practical.

2 Volume lost to decay in forests exceeding 100 years of age is not included. This is estimated at 10 million m^3 per year. Nursery and regeneration losses and growth losses due to other insects, diseases and unwanted vegetation are also not included.

Table D-7: Fire Suppression Program Expenditure[1] in 1982-83, by Forest Region

Forest Region	Direct Fire Fighting	Suppression Flying	Equipment	Standby and Overtime	Suppression & Safety Training	Site Rehabil-itation	TOTAL
	(thousands of dollars)						
Cariboo	1,952	975	21	369	3	5	3,325
Kamloops	538	529	16	338	10	-	1,431
Nelson	290	419	3	294	-	-	1,006
Prince George	9,558	6,088	40	660	15	-	16,361
Prince Rupert	5,282	2,637	20	521	12	14	8,486
Vancouver	954	1,069	17	457	-	-	2,497
Victoria	590	7,064	1,875	138	102	-	9,769
TOTAL	19,164	18,781	1,992	2,777	142	19	42,875

Notes: 1 Includes $10.0 million recovered from Ministry of Finance Vote 40 for contingencies.

Table E-1: Range Management Expenditure[1] in 1982-83, by Range District

Range District	Planning & Administration	Improvements: Repair & Maintenance	Improvements: Development	Inventory & Research	TOTAL
	(thousands of dollars)				
Cariboo	785	40	280	78	1,183
Kamloops	997	-	85	28	1,110
Nelson	642	16	68	72	798
Prince George	638	22	6	-	666
Prince Rupert	275	-	-	-	275
Vancouver	-	-	-	-	-
Victoria	366	-	-	23	389
TOTAL	3,703	78	439	201	4,421

Notes: 1 Excludes expenditure funded through the Agriculture and Rural Development Subsidiary Agreement (ARDSA) which was administered by the Ministry of Forests.

Table E-2: Range Revenue in 1982-83, by Range District

Range District	Annual Rents and Fees (thousands of dollars)
Cariboo	488
Kamloops	451
Nelson	106
Prince George	194
Prince Rupert	50
Vancouver	1
Victoria	1
TOTAL	1,291

Table E-3: Grazing Permits and Grazing Licences in 1982-83, by Range District

Range District	Permits			Licences		
	Number	Authorized	Utilized	Number	Authorized	Utilized
		- - - (AUMs)[1] - - -			- - - -(AUMs)- - - -	
Cariboo	566	347,593	330,577	49	40,844	30,182
Kamloops	461	283,679	278,998	28	53,354	53,354
Nelson	261	73,732	69,191	30	10,605	10,165
Prince George	440	132,523	123,761	20	5,734	5,630
Prince Rupert	196	35,139	27,964	7	5,129	4,368
Vancouver	10	877	586	1	346	168
TOTAL	1,934	873,543	831,077	135	116,012	103,867

Notes: [1] Animal Unit Month (AUM) means the amount of forage required for one month by an average animal of the genus bos, aged 6 months or older.

Table E-4: Hay Cutting Permits and Hay Cutting Licences in 1982-83, by Range District

Range District	Permits			Licences		
	Number	Authorized	Utilized	Number	Authorized	Utilized
		(tonnes)			(tonnes)	
Cariboo	59	932	542	54	1 032	475
Kamloops	-	-	-	2	91	91
Nelson	-	-	-	2	35	35
Prince George	8	128	98	1	8	8
Prince Rupert	5	41	41	1	27	27
Vancouver	-	-	-	-	-	-
TOTAL	72	1 101	681	60	1 193	636

Table E-5: Range Improvements[1] on Crown Land in 1982-83, by Range District

Range District	Seeding		Fencing[3]	Weed Control[4]	Water Development[5]	Other[6]
	Grassland Rehabilitation	Disturbed Forest land[2]				
	-(ha)-		-(km)-	-(ha)-	-(no.)-	-(no.)-
Cariboo	510	1 391	94	56	16	33
Kamloops	-	5 740	69	300	32	47
Nelson	96	2 658	274	205	31	23
Prince George	466	328	370	95	26	30
Prince Rupert	-	1 257	32	-	-	6
Vancouver	-	-	-	-	-	-
TOTAL	1 072	11 374	839	656	105	139

Notes:
1 Excludes improvements funded by ARDSA, EBAP and wholly by private sources.
2 Includes seeding of clearcuts.
3 Includes repair, maintenance and construction of fences.
4 Control of knapweed, thistle, etc.
5 Includes repair, maintenance and development of water sources.
6 Includes repair, maintenance and development of trails, corrals, cattleguards, etc.

Table E-6: Average Cost[1] of Range Improvements[2] on Crown Land in 1982-83, by Range District

Range District	Seeding[3] ($/ha)	Fencing[4] ($/km)	Weed Control[5] ($/ha)
Cariboo	45	2,899	740
Kamloops	14	2,191	451
Nelson	14	2,377	282
Prince George	94	1,592	221
Prince Rupert	22	2,110	-
Vancouver	-	-	-
British Columbia	25	2,270	390

Notes:
1 Based on funds from the Range Management Program, other ministry programs and private sources (on cost sharing projects).
2 Excludes improvements funded by ARDSA, EBAP and wholly by private sources.
3 Combines grassland rehabilitation (1 072 ha) and seeding of disturbed forest land (11 374 ha), mainly clearcuts.
4 Construction of new fences.
5 Includes containment of knapweed (497 ha), thistle (127 ha) and other species (32 ha).

Table F-1: Recreation Expenditure[1] in 1982-83, by Forest Region

Forest Region	Resource Management[2]	Site and Trail		TOTAL
		Maintenance	Development	
	(thousands of dollars)			
Cariboo	224	197	95	516
Kamloops	409	329	31	769
Nelson	480	341	6	827
Prince George	297	78	39	414
Prince Rupert	303	103	7	413
Vancouver	438	279	49	766
Victoria	288	-	-	288
TOTAL	2,439	1,327	227	3,993

Notes: 1 Does not include assistance from volunteer groups and federal-provincial employment programs.
2 Includes administration.

Table F-2: Recreation Site and Trail Use in 1982-83, by Forest Region

Forest Region	Sites		Trails	
	Number Maintained	User Visits[1] (number)	Length Maintained (km)	User Visits[2] (number)
Cariboo	170	226,000	226	2,000
Kamloops	353	497,000	314	84,000
Nelson	219	199,000	434	49,000
Prince George	177	158,000	45	35,000
Prince Rupert	75	107,000	46	3,500
Vancouver	136	461,000	185	26,800
TOTAL	1,130	1,648,000	1,250	200,300

Notes: 1 Estimates. Based on field surveys.
2 Estimates.

VI. SPECIAL REPORT
APPORTIONMENT OF RIGHTS TO HARVEST CROWN TIMBER

Special Report: Apportionment of Rights to Harvest Crown Timber

Introduction

In this Special Report, the term "apportionment" refers to the process through which the allowable annual cuts (AACs) for the timber supply areas (TSAs) created under the Forest Act (1979) were distributed among both holders of rights to Crown timber granted under the previous legislation and others.

This initial apportionment under the new legislation is important because it has established a pattern of timber commitment which is expected to last for decades. Besides assuring the amount of the log supply from TSAs which licensees can rely upon to meet the log requirements of their processing facilities, apportionment established the volume of wood in individual TSAs which can be made available to small operators under the Small Business Enterprise Program (SBEP).

The purpose of this Special Report is twofold:

(i) to review the principles and practices adopted by the Ministry of Forests in carrying out apportionment; and
(ii) to document the results of apportionment as at March 31, 1983.

To assist the reader in understanding apportionment, this Special Report begins with a background section which places the process in its historical context. The apportionment procedures followed and the results of the process are then described.

Background

In his Report of the Royal Commission on Forest Resources, 1976, Commissioner P.H. Pearse urged reform of the forest tenure system in British Columbia to make it more equitable and less complex. New forest legislation, passed in 1978, embodied many of the recommendations contained in the Pearse report.

Following the proclamation of the Ministry of Forests Act and the Forest Act on January 1, 1979, work commenced on the sequence of tasks which set the stage for the actual apportionment process.

The first step was the conversion of the former 85 public sustained yield units (PSYUs) into 33 TSAs. The new management units were mapped out so that timber harvested within a TSA could logically be used to supply processing plants located within the same TSA. In designating TSAs, there were exceptions to this policy, particularly in the coastal region where it was necessary to accomodate the established flow of raw materials to existing mills on the lower coast.

Following the establishment of the TSAs, AACs were set on the basis of timber supply, economic demand for timber and social considerations. The chief forester has determined AACs for 32 of the 33 TSAs. The remaining TSA is the Cassiar in the extreme northwest of the province which currently has only a very small timber harvest for local use.

The total established AAC for the TSAs is 48.1 million cubic metres (m^3). As shown in Table 1, this represents approximately 70% of the allowable annual harvest available from the forest land in British Columbia which is regulated on a sustained yield basis. The remainder of the provincial AAC is accounted for by tree farm licences (TFLs) and certified tree farms outside TFLs.[1]

The names of the TSAs and their associated AACs are shown in Table 2. The TSAs differ significantly in area and this is reflected in the range of AACs established for them. The TSA with the largest AAC is the Prince George TSA. Its AAC of 8.7 million m^3 represents 18% of the total established AAC for all TSAs. In comparison, the AAC for the Revelstoke TSA is only 130 000 m^3.

Apportionment Principles

With the setting of the revised AACs on a TSA basis, the size of the sustainable harvest available for apportionment was determined.

Under Section 8 of the Forest Act, the Minister of Forests is responsible for apportioning the cut. This section of the Act states:

> "The Minister may specify a portion of the allowable annual cut approved for
>
> (a) a public sustained yield unit; or
>
> (b) the Crown land not in a tree farm licence area or woodlot licence area in a timber supply area
>
> to be available for granting under a form of [tenure] agreement referred to in Section 10."

In apportioning the cut, there was only limited room for change due to the constraints imposed by the Forest Act regarding the replacement of rights to Crown timber granted under the previous legislation. The Act required that all "quota" harvesting rights committed under timber sale harvesting licences (TSHLs) and certain timber sale licences (TSLs) be rolled over into new licences, either forest licences (FLs) or revised TSLs. Flexibility was only possible in the replacement of "non-quota" or "third band" timber[2]. In each

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1 In addition, a relatively small portion of the total timber harvest is derived from private lands and historic timber licences that are not subject to regulated rates of harvesting.

TSA, the annual volume available for discretionary allocation was equal to the difference between the AAC and the sum of licensees' "quota" positions in the former PSYUs which comprised the TSA.

Operating within this basic framework, a consistent policy for carrying out apportionment had to be developed. The available options for individual TSAs were examined thoroughly before all the issues emerged and a policy was established.

The three major issues to be resolved were:

(i) the allocation of replacement wood to companies holding licences to harvest "third band" timber under the old legislation;

(ii) the question of establishing a secure wood supply for companies which had traditionally operated without a secure supply;

(iii) the volume of wood to be set aside for sales under the Small Business Enterprise Program (including woodlots).

The provision of replacement wood for companies that had enjoyed "third band" harvesting licences was a contentious issue. Some companies sought a complete review and reapportionment of the old "third band" volumes. Their position reflected perceived inequities in the original allocation of "third band" harvesting licences which had been awarded by the Forest Service on the basis of demonstrated need or performance. Following careful consideration of the companies' argument, it was concluded that the existing historical allocation of "third band" licences would be adopted as the starting point for the apportionment process.

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2 Originally, the regulated harvest in PSYUs was calculated to an "intermediate utilization" standard which prescribed the removal of all timber which was then considered suitable for manufacturing lumber. Improvements in technology and the expansion of the pulp industry into the interior of the Province in the 1960's permitted the economic utilization of smaller trees and waste material previously burned by the sawmills. The Forest Service encouraged the industry to adopt the new technology by instituting a "close utilization" standard for logging. Significant increases in AACs resulted from the revised utilization standard. Quota positions of licensees who elected to log to the new standard were increased, but the calculated increase in AAC typically exceeded the increase in quota, especially in the interior. The extra AAC - called "third band" volume - was eventually made available for harvesting through "third band" timber sales. These sales did not (normally) constitute part of a licensee's quota position.

The acceptance of the historical allocation of "third band" licences as a starting point for apportionment still left open the question as to the actual volume of such wood to be replaced. To accommodate the Small Business Enterprise Program in some TSAs, the volume of wood apportioned to companies to replace the old "third band" licences would have to be smaller than the original volume.

Two basic approaches were considered to reach this objective:

(i) reducing each licensee's "third band" volume by the same percentage within each TSA; and

(ii) reducing each licensee's "third band" position in such a way as to achieve the same percentage reduction in each licensee's total commitment position (both "quota" and "third band") within each TSA, subject only to the legislative requirement to fully replace all quota timber.

The second alternative was adopted as the more equitable approach.

Another question to be resolved was the future wood supply of companies which only had a small fraction of the wood requirement for their mills supplied from secure tenures. Some of these companies had come to rely upon Crown timber harvested from what were formerly called "District Forester Sales," typically salvage sales. With the introduction of the Small Business Enterprise Program, this type of sale was expected to disappear.

To protect the interests of these companies, it was decided that new long-term licences would be offered in those TSAs where there were uncommitted volumes. (The AAC for the TSA exceeded the "quota" rollover volume.) These companies were identified as those having less than 60% of their estimated mill requirements at capacity in secure tenures. The new long-term licences would be offered on a competitive basis to these operators. The upper limit for the volume of wood to be offered for sale on this basis was the uncommitted volume in each TSA.

Determining apportionment guidelines for the Small Business Enterprise Program was difficult due to the two conflicting objectives involved:

(i) the desire to establish a Small Business Enterprise Program to ensure that room is maintained in the provincial forest industry for the dynamic, innovative small operator;

(ii) the desire to create a minimum disruption in the wood supplies of existing licensees.

The initial target established for the size of the Small Business Enterprise Program was 15% of the AAC in each TSA. This percentage included 1% to be apportioned for the Woodlot Licence Program. The long-term objective for the Small Business Enterprise Program remains at 25% of the AAC.

On the coast, where there was only one "third band" licence, the volume of wood available to be apportioned to the Small Business Enterprise Program in individual TSAs was virtually limited to the volume of uncommitted wood left after providing for the rollover of "quota" licences and the allocation of wood for these companies without a secure wood supply.

In the interior, flexibility in providing wood for the Small Business Enterprise Program was greater due to the existence of substantial "third band" commitments in most, but not all, interior TSAs. In those interior TSAs where the Small Business Enterprise Program goal could not be achieved without reducing the size of the "third band" commitment, the two conflicting objectives noted previously had to be reconciled.

It was decided that the maximum reduction in any licensee's total commitment position ("quota" plus "third band") in a TSA made to accommodate the Small Business Enterprise Program would not exceed 10%, subject to the condition that the "quota" portion had to be rolled over without any reduction. Moreover, the "third band" fraction to be rolled over would be consolidated in the replacement "quota" licence.

With the adoption of the above principles, apportionment plans were established for individual TSAs. Various alternatives were presented to the Minister of Forests for final decision.

Results of Apportionment

The results of apportionment as at March 31, 1983 are summarized in Table 2. The total apportioned volume of 48 066 190 m^3 is slightly less than the total AAC. The aggregate discrepancy is attributable to a combination of:

(i) overcommitments in the Fort Nelson, Mackenzie and Arrow TSAs;
(ii) undercommitments in the Nootka, Prince George, Kootenay Lake and North Coast TSAs.

In the remaining 25 TSAs for which AACs have been established, the apportioned volumes are identical to the AACs.

The dominant form of licence under the apportionment is the forest licence. The 179 forest licences[3] as at March 31, 1983 account for 85.8% of the total apportioned volume. The remainder of the apportioned volume is distributed as follows:

(i) designated timber sale licences	1.8%
(ii) Small Business Enterprise Program	10.1%
(iii) Woodlot Licence Program	1.0%
(iv) Forest Service Reserve	1.3%

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3 In both Tables 1 and 2, the category "Forest Licences" includes volumes apportioned for forest licences which may still be held as TSHLs.

The relative magnitude of the Small Business Enterprise Program varies considerably across TSAs from 0% of the apportioned volume in the Mackenzie TSA to 23% in the Bulkley TSA. The wide variation in the significance of the Small Business Enterprise Program across TSAs reflects the differences encountered in the volumes of wood potentially available for allocation to the program in the different TSAs.

Where possible in the apportionment process, a minimum of 1% of the AAC in each TSA was retained as Forest Service Reserve to provide some flexibility for the ministry to dispose of minor volumes when the need arises. As shown in Table 2, this objective was achieved in 21 TSAs.

Table 3 presents a summary view of the distribution of harvesting rights by the number of controlling companies. In interpreting this table, it should be noted that only long-term harvesting rights (forest licences and designated timber sale licences) are considered. As shown in Table 2, these two classes of licences dominate the apportioned volume of wood in the 32 TSAs, together accounting for approximately 88% of the total. More than 50% of this volume is held by the ten largest controlling companies as shown in Table 3.

Summary

The initial apportionment of harvesting rights under the Forest Act (1979) represented a milestone in the evolution of forest tenures in British Columbia. It has resulted in a pattern of timber commitment which is expected to persist for decades. In making the difficult decisions inherent in the apportionment process, the Minister of Forests, assisted by his senior staff, gave careful consideration to technical, social, historical and economic factors.

Table 1: Allowable Annual Cut in British Columbia as at March 31, 1983

Region	Number of Management Units	Allowable Annual Cut (thousand m^3)
Cariboo		
Timber Supply Areas	3	6 050
Tree Farm Licences	1	119
Regional Total	4	6 169
Kamloops		
Timber Supply Areas	4	7 000
Tree Farm Licences	7	771
Regional Total	11	7 771
Nelson		
Timber Supply Areas	7	4 569
Tree Farm Licences	5	1 641
Certified Tree Farms Outside Tree Farm Licences	11	459
Regional Total	23	6 669
Prince George		
Timber Supply Areas	5	14 850
Tree Farm Licences	1	437
Regional Total	6	15 287
Prince Rupert		
Timber Supply Areas	9	8 150
Tree Farm Licences	6	4 191
Regional Total	15	12 341
Vancouver		
Timber Supply Areas	5	7 500
Tree Farm Licences	16	12 109
Certified Tree Farms Outside Tree Farm Licences	27	2 225
Regional Total	48	21 834
Province		
Timber Supply Areas	33	48 119
Tree Farm Licences	33	19 269
Certified Tree Farms Outside Tree Farm Licences	38	2 683
Grand Total	104	70 071

Notes:
1 The allowable annual cut for the Cassiar Timber Supply Area in the Prince Rupert Forest Region has yet to be established.
2 Tree Farm Licences 2, 25 and 39 are partly in both the Vancouver and Prince Rupert Forest Regions.
3 In addition to the allowable annual cut for timber supply areas, tree farm licences, and certified tree farms outside tree farm licences, a relatively small portion of the provincial timber harvest is derived from private lands and historic timber licences that are not subject to regulated rates of harvesting.

Table 2: Apportionment by Timber Supply Area and Tenure
as at March 31, 1983

Region	Timber Supply Area (no.)		Allowable Annual Cut (m^3)	Forest Licences[1] (m^3)	Forest Licences[1] (no.)	Timber Sale Licences (m^3)	Timber Sale Licences (no.)	Small Business Enterprise Program Category 1 (m^3)	Small Business Enterprise Program Category 2 (m^3)	Woodlot Licences (m^3)	Forest Service Reserve (m^3)	Total Apportioned (m^3)
Cariboo	23	100 Mile House	1 250 000	1 125 000	4	0	0	62 500	37 500	12 500	12 500	1 250 000
	26	Quesnel	2 300 000	1 906 110	6	163 890	19	149 500	23 000	34 500	23 000	2 300 000
	29	Williams Lake	2 500 000	2 246 200	7	11 500	3	125 000	75 000	25 000	17 300	2 500 000
		Regional Total	6 050 000	5 277 310	17	175 390	22	337 000	135 500	72 000	52 800	6 050 000
Kamloops	11	Kamloops	2 350 000	1 994 850	9	2 650	10	230 300	75 200	23 500	23 500	2 350 000
	15	Lillooet	800 000	648 320	4	18 730	1	93 600	10 400	8 000	20 950	800 000
	18	Merritt	1 150 000	1 035 600	5	0	0	80 200	11 500	11 500	11 200	1 150 000
	22	Okanagan	2 700 000	2 362 820	10	69 610	36	151 190	64 800	27 000	24 580	2 700 000
		Regional Total	7 000 000	6 041 590	28	90 990	47	555 290	161 900	70 000	80 230	7 000 000
Nelson	1	Arrow	619 000	552 330	7	3 960	2	30 000	30 000	6 000	0	622 290
	2	Boundary	700 000	527 090	2	18 100	7	56 000	35 000	7 000	56 810	700 000
	5	Cranbrook	900 000	818 560	5	6 570	5	28 440	28 430	9 000	9 000	900 000
	7	Golden	650 000	570 420	3	12 920	3	25 920	26 640	6 500	7 600	650 000
	9	Invermere	670 000	595 040	2	12 780	4	19 950	29 930	6 700	5 600	670 000
	13	Kootenay Lake	900 000	652 810	5	7 220	7	72 000	45 000	9 000	8 970	795 000
	27	Revelstoke	130 000	92 550	2	13 710	8	11 700	5 200	1 300	5 540	130 000
		Regional Total	4 569 000	3 808 800	26	75 260	36	244 010	200 200	45 500	93 520	4 467 290

See footnotes at end of table.

Table 2: Apportionment by Timber Supply Area and Tenure
as at March 31, 1983 (Continued)

Region	Timber Supply Area		Allowable Annual Cut	Forest Licences[1]		Timber Sale Licences		Small Business Enterprise Program		Woodlot Licences	Forest Service Reserve	Total Apportioned
								Category 1	Category 2			
	(no.)		(m^3)	(m^3)	(no.)	(m^3)	(no.)	(m^3)				
Prince George	6	Peace	2 000 000	1 654 080	4	190	1	220 000	50 000	30 000	45 730	2 000 000
	8	Fort Nelson	750 000	1 015 480	3	0	0	0	3 500	0	0	1 018 980
	16	Mackenzie	2 900 000	2 952 320	2	0	0	0	0	0	0	2 952 320
	17	McBride	500 000	391 010	3	13 080	3	59 500	10 500	5 000	20 910	500 000
	24	Prince George	8 700 000	7 184 310	17	212 690	38	887 400	156 600	87 000	87 000	8 615 000
		Regional Total	14 850 000	13 197 200	29	225 960	42	1 166 900	220 600	122 000	153 640	15 086 300
Prince Rupert	3	Bulkley	650 000	432 310	2	42 980	3	128 370	20 920	6 500	18 920	650 000
	4	Cassiar	-	-	-	-	-	-	-	-	-	-
	10	Kalum	450 000	379 890	2	2 680	3	52 580	5 850	4 500	4 500	450 000
	12	Kispiox	1 100 000	861 500	6	18 460	4	172 260	25 740	11 000	11 040	1 100 000
	14	Lakes	1 500 000	1 072 620	5	12 710	7	169 980	128 140	15 000	101 550	1 500 000
	19	Midcoast	1 400 000	1 323 540	8	4 030	1	30 430	14 000	14 000	14 000	1 400 000
	20	Morice	2 000 000	1 871 980	2	190	1	64 840	26 240	20 000	16 750	2 000 000
	21	North Coast	600 000	344 150	5	6 170	1	96 810	12 000	6 000	9 870	475 000
	25	Queen Charlotte	450 000	379 990	4	9 650	4	55 860[2]	-	4 500	0	450 000
		Regional Total	8 150 000	6 665 980	34	96 870	24	771 130	232 890	81 500	176 630	8 025 000
Vancouver	30	Fraser	1 700 000	1 389 800	9	52 940	16	223 260[2]	-	17 000	17 000	1 700 000
	31	Soo	700 000	556 370	8	27 290	8	102 340[2]	-	7 000	7 000	700 000
	32	Quadra	2 000 000	1 669 900	12	89 990	24	202 450[2]	-	20 000	17 660	2 000 000
	33	Kingcome	1 700 000	1 409 000	8	11 090	2	238 000[2]	-	17 000	24 910	1 700 000
	34	Nootka	1 400 000	1 228 920	8	0	0	80 410[2]	-	14 000	14 270	1 337 600
		Regional Total	7 500 000	6 253 990	45	181 310	50	846 460[2]	-	75 000	80 840	7 437 600
Provincial Total			48 119 000	41 244 870	179	845 780	221	3 920 790[3]	951 090[3]	466 000	637 660	48 066 190

NOTES: 1 The category "Forest Licences" includes timber sale harvesting licences which have been apportioned as forest licences, but which have not yet been rolled over. The apportionment plan assumes that, where appropriate, these timber sale harvesting licences will be combined as forest licences and that the replacement volumes will be reduced to exclude W2 (non-recoverable sound wood).

2 Combined Category 1 and Category 2.

3 Category 1 includes 902 320 m^3 of combined Category 1 and Category 2. The provincial total for Category 2 is therefore understated.

Table 3: Concentration of Control over Timber Harvesting Rights in Timber Supply Areas as at March 31, 1983
(Forest Licences and Designated Timber Sale Licences Only)

Controlling Companies	Forest Licences	Designated Timber Sale Licences	Allowable Annual Cut of Licences	
	(number)	(number)	(m^3)	(% of B.C. Total)
Single Largest	10	1	3 635 710	8.6
Two Largest	20	4	6 925 510	16.5
Five Largest	35	7	13 794 630	32.8
Ten Largest	61	10	22 152 083	52.6
Twenty Largest	91	13	29 851 013	70.9
Thirty Largest	105	15	34 632 363	82.3
TOTAL	179	221	42 090 650	100.0

VII. SPECIAL REPORT

THE CANADA-BRITISH COLUMBIA EMPLOYMENT BRIDGING ASSISTANCE PROGRAM

Special Report:

The Canada-British Columbia Employment Bridging Assistance Program

Introduction

The Canada-British Columbia Employment Bridging Assistance Program (EBAP) was a successful job creation program sponsored jointly by the Province of British Columbia and the Government of Canada. It was operational in British Columbia over the period June 18, 1982 to June 30, 1983. The program enabled unemployment insurance recipients to augment their benefits through voluntary participation in forest management projects.

The purpose of this special report is threefold:

1) to describe the circumstances surrounding the establishment of the program and its legal basis;
2) to outline the administration and operation of the program;
3) to summarize accomplishments under the program.

EBAP represented an innovative approach to easing the social costs of unemployment and enhancing the forest resource of British Columbia.

Background

The export oriented British Columbia economy experienced a sharp cyclical contraction in 1982 as weak export markets reflected the effects of a general worldwide economic recession. The decline in provincial economic activity was accompanied by a large increase in the number of people unemployed. During 1982, unemployment in British Columbia averaged 163,000 workers. This represented 12.1% of the labour force compared to an average unemployment rate of only 6.7% in 1981.

The precipitous growth in the unemployment rate commenced in the second half of 1981. On a seasonally adjusted basis, the unemployment rate in British Columbia rose more or less steadily from 6.1% in July 1981 to 13.8% in July 1982.

The social and economic costs associated with this rising level of unemployment were particularly severe in many resource-based communities throughout the Province. In an effort to alleviate this problem, the Province of British Columbia and the Government of Canada commenced negotiations early in 1982 which led to the establishment of EBAP.

Program Concept

Section 38 of the Unemployment Insurance Act (1971) provides that unemployment insurance (UI) funds may be used to pay claimants employed on job creation projects conducted by the Government of Canada. The principal objective of job creation programs funded under Section 38 is to ensure that the skills of workers continue to be utilized during periods when they are laid off. In this context, the main goals of such programs are:

1) to create immediate opportunities for productive activity on the part of workers whose short-term alternative employment prospects appear poor;
2) to retain a work force intact in cases where the workers could eventually return to their original jobs or to new employment opportunities created directly or indirectly as a result of the launching of the projects;
3) to create assets of value to the community in all cases.

Job creation under Section 38 is directed at two basic types of situations:

1) An economic growth model involving the financing of developmental projects which make a lasting social and economic contribution to the community. This includes silvicultural projects such as thinning of woodlots, salvaging of wood, and tree planting.

2) A natural disaster/temporary economic crisis model developed to deal with various kinds of unusual or unexpected situations in specific communities where there is a relatively homogenous labour force and where only limited employment opportunities are available. Projects under this component are designed to address problems arising out of natural disasters and temporary economic crises such as the destruction of a sawmill by a fire.

Such UI funded job creation program projects can be sponsored by any established organization, partnership or corporation, including federal, provincial, territorial and municipal government departments and agencies.

Participation in the projects is open to UI claimants who otherwise would probably be unemployed over the period when the project is carried out.

Project participation is voluntary in that no disqualification or disentitlement would result from a claimant leaving or refusing to participate in a project. Benefits payable to participants must be specified in an agreement with the Government of Canada, subject to the following restrictions:

1) the minimum allowable benefit is the greater of UI benefits payable to potential participants or the rate identified by the Canada Employment and Immigration Commission (CEIC) for the type of participation;

2) the maximum allowable benefit is the lesser of the rate identified by the CEIC, or $240 per week.

Notwithstanding the maximum benefit payable by the CEIC, the regulations under the Unemployment Insurance Act provide that earnings received by a claimant from an employer or any other source by reason of his employment on a job creation project under Section 38 shall not be deducted from his UI benefit. Participants in a job creation program established under Section 38 can have their UI benefits topped up from another source without penalty.

A program conforming to the economic growth model and directed towards workers affected by the recession in the forest industry was developed initially as a pilot project in Ontario. The Canada/Ontario Accelerated Forest Improvement Program, an employment bridging mechanism for laid-off skilled forestry workers, was announced by the federal Minister of Employment and Immigration on February 8, 1982. At that time, the Minister noted that the federal government was prepared to consider the establishment of similar programs elsewhere in Canada.

The British Columbia Ministry of Labour supported provincial involvement in such a program, and in February, 1982, was authorized to commence negotiating an agreement with the federal government.

Funding

In British Columbia, Bill 26, the Employment Development Act, established a Cabinet Committee on Employment Development (CCED) with responsibility for the allocation of $132.9 million appropriated under the Act for:

1) developing employment training, employment opportunities, employment preparation, job creation initiatives and related employment services,
2) the costs of administering the Act.

The Ministry of Forests approached the CCED with a request for funds from the Employment Development Account to be used as the provincial contribution to a program to be established under the Canada Employment Bridging Assistance Program. The proposed program would provide temporary employment in intensive forest management projects for laid-off workers in the forest industry who were receiving UI benefits. The CCED approved the allocation of $10 million as the provincial contribution to the agreement being negotiated with the federal government.

On April 23, 1982, the federal Minister of Employment and Immigration and the British Columbia Minister of Labour signed a Letter of Intent to implement an employment bridging assistance program to provide 100,000 participant weeks of employment for unemployed British Columbia forestry workers receiving UI benefits. The $34 million program would provide employment opportunities to workers in resource-based communities affected by the market recession.

Under the terms of the Letter of Intent, the CEIC would provide a maximum of $24 million from UI funds for benefit payments of up to $240 per week per program participant. The Government of British Columbia would contribute $10 million from its Employment Development Account to provide a $60 per week supplementary payment to participants and to underwrite costs of family protection benefits. Subsequently, Environment Canada, through the Canadian Forestry Service (CFS), joined the program by agreeing to fund the major overhead and logistic costs incurred on projects undertaken in the program. The CFS was initially authorized to commit $9.6 million to the British Columbia program, but this was later increased to $16 million.

The formal agreement between Canada and British Columbia dated June 18, 1982 confirmed these funding arrangements and provided for the establishment of a joint federal/provincial management committee to be responsible for the administration of the agreement. For the federal government, the Minister of Employment and Immigration and the Minister of Environment were each required to appoint one regular member to the committee. For the provincial government, the Minister of Labour and the Minister of Forests were each required to appoint one regular member to the committee. The agreement provided that the regular members of the committee could invite other, non-voting representatives to committee meetings.

Program Development

Guidelines

Preliminary guidelines for the program were based on those developed for the Canada/Ontario Accelerated Forest Improvement Program. The British Columbia guidelines included as one of the eligibility criteria that "Candidate projects are incremental to the Forest Resource Program that has been approved in the Ministry of Forests' Program." Tree planting projects were ruled ineligible on the basis that the seedlings had been grown to meet the planting goals established in the ministry's Five-Year Forest and Range Resource Program.

Communication

As a first step, the Minister of Forests wrote letters to the presidents of the forest industry companies and to the forest industry associations soliciting support for the program. The companies, as potential project sponsors, were requested to begin immediately to identify possible intensive forest management projects that could qualify under the plan. Subsequently, the Minister, the Deputy Minister and support staff met separately with regional staff in Vancouver, Nelson, Williams Lake, Smithers, Prince George and Kamloops and with representatives of individual forest industry companies in the Forest Regions, to review and discuss the program and its administration. The discussions were extremely useful as they identified problems that would have to be resolved before the program could be implemented successfully in the province.

Problems Recognized and Principles Established

1) To encourage forest industry participation in the program, it was agreed that projects sponsored by the holder of a forest licence or timber sale licence would qualify for the allowable annual cut productivity incentive under Section 52 of the Forest Act.

2) In addition to projects on Crown lands, sponsors could propose projects on private lands that were being managed for timber production.

3) Fires occurring as a result of project operations on Crown land would be considered the responsibility of the Forest Service.

4) Upon request, advance payments would be made available by the Province to project sponsors to cover overhead and supplementary wage costs. The payment would be the lesser of the estimated cost for the first month of the project or 50% of the estimated total cost of the project.

5) Because the project agreement form to be completed by sponsors might create an employer/employee relationship with participants coming under the protection of the Employment Standards Act, and because the 'employer' would pay the employee less than the minimum wage (i.e. the $60 supplement to the $240 UI payment to participants), it was necessary to amend the Regulations under the Act to exempt participants in the program.

6) Trade union representatives and Ministry of Labour officials expressed concern that the proposed agreement to be signed by project sponsors had the potential for conflict with collective agreements already in force between forest industry sponsors and their employees. As a consequence, the agreement was amended to provide that "the project sponsor, when party to collective agreement(s), shall ensure that the parties to said agreement(s) accept the terms and conditions of the project proposal prior to the submission of the proposal for certification in accordance with Schedule "A" attached hereto."

   Potential project sponsors were advised that it was their responsibility to ensure that, where a collective agreement was in force, the parties to the collective agreement agreed to the terms and conditions of the project prior to approval being granted, and that the federal government and the provincial government would incur no liability for costs incurred over and above those approved in the project sponsor agreement.

7) The Workers' Compensation Board (WCB) relationship had to be revised so that accidents occurring on an EBAP project would not be used for experience-rating individual firms. It was subsequently agreed that the EBAP would be administered as a provincial project under WCB Class 13 and that the Province would accept liability for costs due to accidents.

8) The amount that the CFS could accept for project overhead and administrative costs had to be increased. Initial approval provided that the amount payable with respect to project costs could not exceed $150 per position week, and it was assumed that the average cost per position week would be $72. This severely limited the number of projects (particularly stand improvement) that could be approved and the overhead maximum was successively increased to $200 per position week.

All of these issues were identified as problems during the initial series of meetings with the forest industry. In particular, the forest industry was unwilling to support the program fully until the WCB issue was decided. Since the program was designed to benefit the participants and the land owner, it was unreasonable to penalize forest industry sponsors for accidents which

occurred on EBAP projects when most projects were implemented on Crown land. The participation of forest industry companies as project sponsors was largely motivated by their concern for the well being of their unemployed work force. It represented an act of good corporate citizenship.

The potential for problems stemming from conflicts with collective agreements already in place continued throughout the duration of the program with the result that some companies were reluctant to become as heavily involved as they might otherwise have been.

Administration

Eligible Projects

Projects funded under the program had to be implemented on Crown and/or managed forest lands. Silviculture, protection, range, recreation and combination projects were implemented under the program. Specific activities approved included:

1) Silviculture
   - site rehabilitation
   - spacing
   - pruning
   - brushing and weeding
   - access
   - tree seed supply
2) Protection
   - hazard reduction
   - fire suppression training
3) Range
   - fencing and other range improvements
4) Recreation
   - upgrading recreation areas and trails

The projects implemented under EBAP were incremental to those activities included in the Five-Year Forest and Range Resource Program of the Ministry of Forests. Moreover, the projects could not be used to meet the forest management obligations of licensees under their contracts to harvest Crown timber.

Project Sponsorship

For project sponsors, the only criterion for participation in EBAP was that the sponsor be capable of implementing an acceptable project. Projects were sponsored by:

- forest product companies,
- forestry consulting companies,
- municipalities,
- chambers of commerce,
- ranchers,
- recreation associations,
- private individuals, and others.

Project Initiation and Approval

Project initiation was the responsibility of the sponsor who submitted his project proposal to the local Ministry of Forests District Manager for initial assessment. If the project was accepted by the District Manager, it was then submitted to the management committee for their approval or rejection. This committee consisted of representatives from the provincial Ministries of Forests and Labour and from the CFS and the CEIC. Representatives of Forest Industrial Relations Limited (FIR) and the International Woodworkers of America (IWA) also attended some of the management committee meetings as invited, non-voting participants. In some cases, their involvement was instrumental in obtaining the sponsor/union agreement necessary before a project could proceed.

To expedite the project approval process, the Silviculture Branch of the Ministry of Forests was authorized by the management committee to approve unilaterally those project proposals for which the overhead costs did not exceed a pre-determined limit. Projects approved through this fast-track method were then forwarded to the CFS before being directed to the CEIC in Vancouver.

Following final approval notification from the CEIC, actual work on the project commenced. Project participants were referred to the sponsor by the local Canada Employment Centre. The sponsor was responsible for project administration and for ensuring that the project objectives were achieved. The sponsor was also responsible for paying project participants the $60 weekly wage benefit supplement met by the Province. This expenditure and that for equipment rental, direct supervision, etc., covered by the CFS, were recompensed to the sponsor by the Province.

The Ministry of Forests District Manager was responsible for inspecting projects and for processing cost claims from sponsors for the provincial and CFS funding. CFS funding was subsequently recovered by the Province from the Government of Canada. The CEIC was responsible for making the augmented unemployment insurance payments directly to all participants.

Accomplishments

As both the administrative problems were resolved and the benefits of the program became apparent, interest in EBAP increased until it was firmly established as a productive job creation vehicle. In its early stages, especially, small groups and organizations played a significant role in program delivery. The growth of the program from its inception is illustrated in Table 1 which shows cumulative project approvals by month through March 31, 1983.

The program was initially established to run through March 31, 1983. Funding authority was subsequently extended to permit work to continue for another three months on projects approved prior to March 31, 1983, but which were not finished by the end of the fiscal year. Provincial funding for the program was discontinued effective June 30, 1983 as part of the government restraint package.

Projects approved under the program varied significantly in size. According to information submitted in the sponsor agreements, the projects approved through March 31, 1983 provided employment for anywhere from 3 to 80 workers with the average project creating employment for approximately 10 workers for a period of 13 weeks.

Actual expenditure and estimated job creation by Forest Region through June 30, 1983 are shown in Table 2. Almost 86,000 weeks of employment were created through the expenditure of approximately $39.4 million. The federal government contributed more than 80% of the total cost of the program through CEIC payments to participants of $18.9 million and CFS payments of $14.1 to cover allowable overhead costs incurred by project sponsors.

In addition to the direct provincial contribution of $6.4 million shown in Table 2, the Province was also responsible for reimbursing the WCB for the cost of claims arising from accidents which occurred on EBAP projects on or before June 30, 1983. Through August 31, 1983, this additional cost totalled approximately $.5 million.

EBAP activity varied considerably by Forest Region and Forest District. Projects were initiated in all but three of the 46 Forest Districts - the Fort Nelson Forest District in the Prince George Forest Region and the Cassiar and Mid-Coast Forest Districts in the Prince Rupert Forest Region.

The number of projects implemented in an individual Forest District depended upon a variety of factors including:

1) the level of unemployment in the area;
2) the initiative shown by Forest District staff in identifying potential project areas and assisting sponsors to develop viable project proposals;
3) the degree of cooperation extended by union locals in agreeing to projects;
4) the willingness of sponsors, especially local forest product companies, to propose and supervise projects.

The program was particularly successful in creating employment in the following Forest Districts:

Forest District	EBAP Expenditure (thousands of dollars)	Employment Created (participant weeks)
Kalum	7,437	16,252
Duncan	5,554	11,520
Kootenay	2,127	5,070
100 Mile House	2,094	3,990
Maple Ridge	1,975	4,742
Port Alberni	1,901	4,031
TOTAL	21,088	45,605

These six Forest Districts accounted for more than 50% of the total employment generated under the program.

Major silvicultural accomplishments by Forest Region under the program are shown in Table 3. Silvicultural improvements were implemented on more than 21 000 hectares (ha). The most important treatments were juvenile spacing (8 649 ha) and brushing and weeding (4 045 ha).

Major recreation and range accomplishments are summarized in Table 4. In addition to the accomplishments shown in Tables 3 and 4, a wide variety of other improvements to the forest and range resources of the Province were also made under the program. These achievements included construction of picnic sites and footbridges, grassland seeding, beetle control and various types of hazard abatement.

Summary

The projects funded under EBAP created useful employment in the forestry sector. The program was generally well received by participants, project sponsors and community leaders. Lasting resource enhancement projects were completed while the social and economic costs of the cyclical economic downturn were eased significantly. Besides receiving augmented unemployment insurance benefits, participants were able to enhance their self-esteem as they acquired useful skills in the completion of these projects.

Experience with the program demonstrated that productive employment opportunities can be provided in forest management in cyclical downturns and at short notice. With the cooperation of the forest product companies, organized labour and others, government can create temporary jobs on relatively short notice to ease the economic and social hardships imposed by cyclical downturns in the export oriented British Columbia economy.

Table 1 : Cumulative EBAP Project Approvals

Date	Number of Projects	Number of Workers
June 23, 1982	11	117
July 29, 1982	81	741
August 23, 1982	115	1,160
September 23, 1982	171	1,660
October 29, 1982	270	2,593
November 26, 1982	360	3,649
December 24, 1982	409	4,145
January 28, 1983	486	5,021
February 25, 1983	535	5,466
March 31, 1983	530	5,415

Notes: 1 The apparent decline in the number of projects approved from February 25 to March 31, 1983 is due to the elimination of some projects which never commenced.
2 Extensions for 233 projects were approved following March 31, 1983.

Table 2: EBAP Expenditure by Forest Region

Forest Region	Number of Projects	Expenditure				Employment Created
		Ministry of Forests	CFS	CEIC	Total	
		(thousands of dollars)				(participant weeks)
Cariboo	97	493	1,217	1,340	3,050	6,092
Kamloops	83	576	1,124	1,746	3,446	7,937
Nelson	107	1,004	1,914	2,844	5,763	12,928
Prince George	78	551	1,286	1,707	3,544	7,760
Prince Rupert	114	1,283	3,085	4,008	8,376	18,218
Vancouver	271	2,527	5,496	7,221	15,245	32,826
TOTAL	750	6,434	14,123	18,867	39,424	85,761

Notes:
1 EBAP expenditure and job creation estimated over the duration of the program from June 18, 1982 through June 30, 1983.
2 Number of projects includes project amendments and extensions.
3 Ministry of Forests and CFS expenditure data from unaudited EBAP files maintained by Ministry of Forests.
4 CEIC expenditure estimates from CEIC.
5 Number of participant weeks of employment estimated by dividing CEIC expenditure by $220. In estimating employment, the $240 weekly rate was reduced to $220 to allow for absent days not paid.

Table 3: EBAP Silviculture Accomplishments by Forest Region

Forest Region	Juvenile Spacing	Brushing & Weeding	Other Treatments	Cones Collected
	(hectares)			(hectolitres)
Cariboo	1 113	-	79	13.2
Kamloops	1 365	-	2 953	104.0
Nelson	1 745	496	1 342	-
Prince George	921	153	2 362	193.0
Prince Rupert	1 136	1 639	1 140	21.4
Vancouver	2 369	1 757	674	30.8
TOTAL	8 649	4 045	8 550	362.4

Notes: 1 Silviculture accomplishments estimated over the duration of the program from June 18, 1982 through June 30, 1983.

2 Other treatments include pruning, site preparation, conifer release, site rehabilitation, mistletoe control, snag falling, sanitation spacing, juvenile spacing layout and silviculture access.

Table 4: Recreation and Range Accomplishments under EBAP

Type of Project		Accomplishment
Recreation		
Trails:		
	Constructed	357 km
	Improved	476 km
Campsites:		
	Constructed	64
	Improved	79
Range		
Fence:		
	Constructed	130 km
	Maintained	54 km

Notes: 1 Recreation and range accomplishments estimated over the duration of the program from June 18, 1982 through June 30, 1983.

VIII. THE STRUCTURE OF THE MINISTRY

The ministry established its present structure in order to decentralize administrative authority. The headquarters, region and district staffs work together to decentralize decision-making. The ministry headquarters staff define policy and provide overall guidance. They also advise the deputy minister and through him, the minister and government on all matters relating to forest and range policy.

Headquarters Organization

As shown in the organization chart on page 110, the ministry headquarters staff is organized into the following four divisions:

- Forestry;
- Timber, Range and Recreation;
- Finance and Administration;
- Operations.

Each of the four divisions is headed by an assistant deputy minister who reports to the deputy minister. These four officials, together with the deputy minister as chairman, constitute the ministry's executive. In addition to the four assistant deputy ministers, the directors of the Information Services Branch and the Strategic Studies Branch report directly to the deputy minister.

The functions of each division are summarized below.

The Forestry Division ensures that all Crown forest and range lands are managed to provide the greatest long-term benefits for British Columbia. The assistant deputy minister of this division is also the chief forester. The Forestry Division maintains a comprehensive inventory of all the province's forest and range resources and assesses these lands in terms of their present and potential uses. The division comprises the following five branches:

- Planning;
- Inventory;
- Research;
- Silviculture;
- Protection.

The Timber, Range and Recreation Division is responsible for formulating comprehensive timber, range and recreation programs and related resource management policies. It also advises the executive on all matters involving engineering and valuation activities. The division is composed of the following five branches:

- Range Management;
- Timber Management;
- Recreation Management;
- Valuation;
- Engineering.

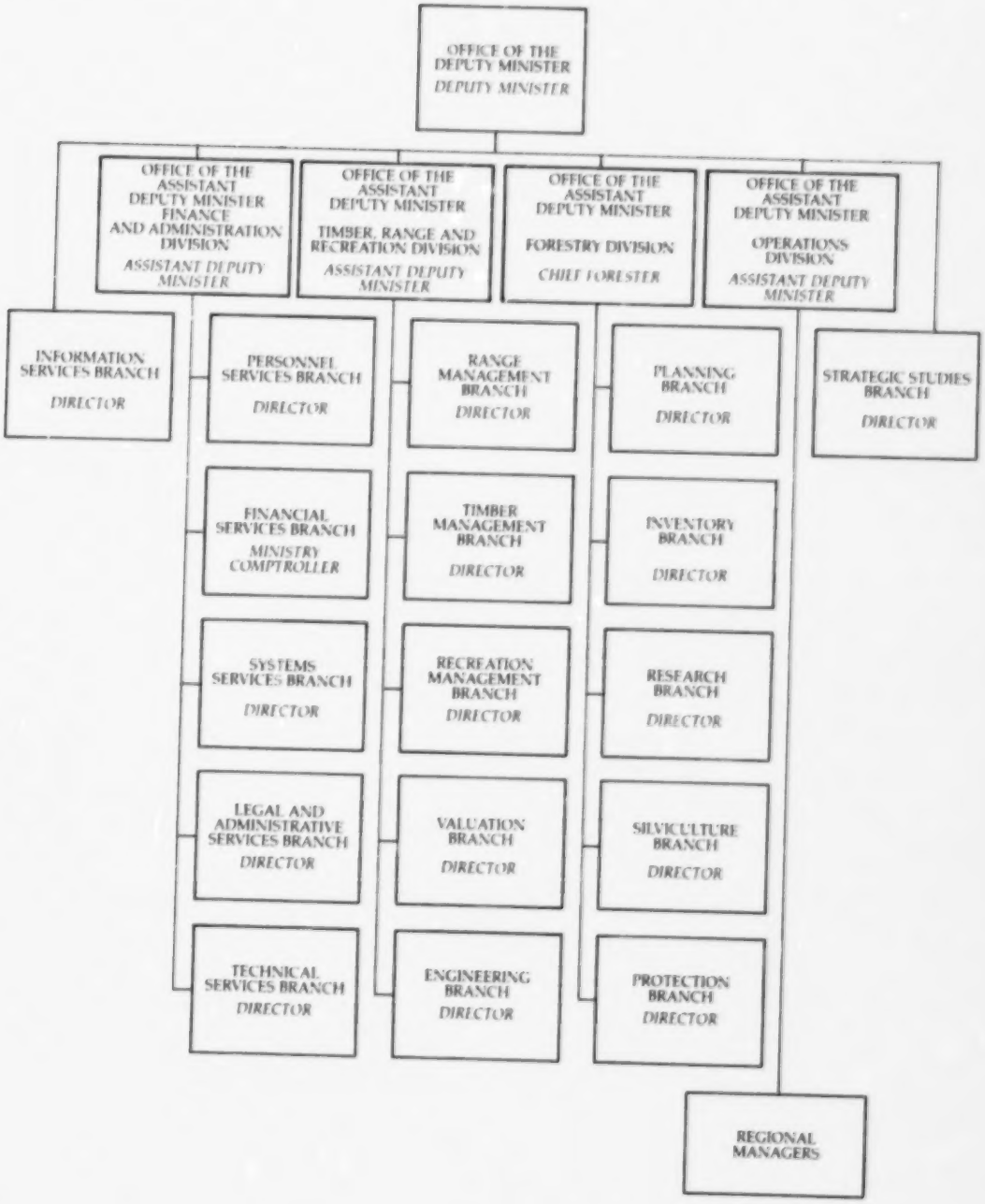
The Finance and Administration Division is responsible for advising the executive in all administrative matters and for developing policies and procedures pertaining to the ministry's general administration. The division is composed of the following five branches:

- Personnel Services;
- Financial Services;
- Systems Services;
- Legal and Administrative Services;
- Technical Services.

The Operations Division is responsible for ensuring that the ministry's policies, programs and procedures are promptly and effectively implemented in the province's six forest regions and 46 forest districts. The assistant deputy minister of operations functions as the deputy minister's immediate assistant in administering and coordinating all field operations. The six forest regions are:

- Cariboo;
- Kamloops;
- Nelson;
- Prince George;
- Prince Rupert;
- Vancouver.

HEADQUARTERS ORGANIZATION

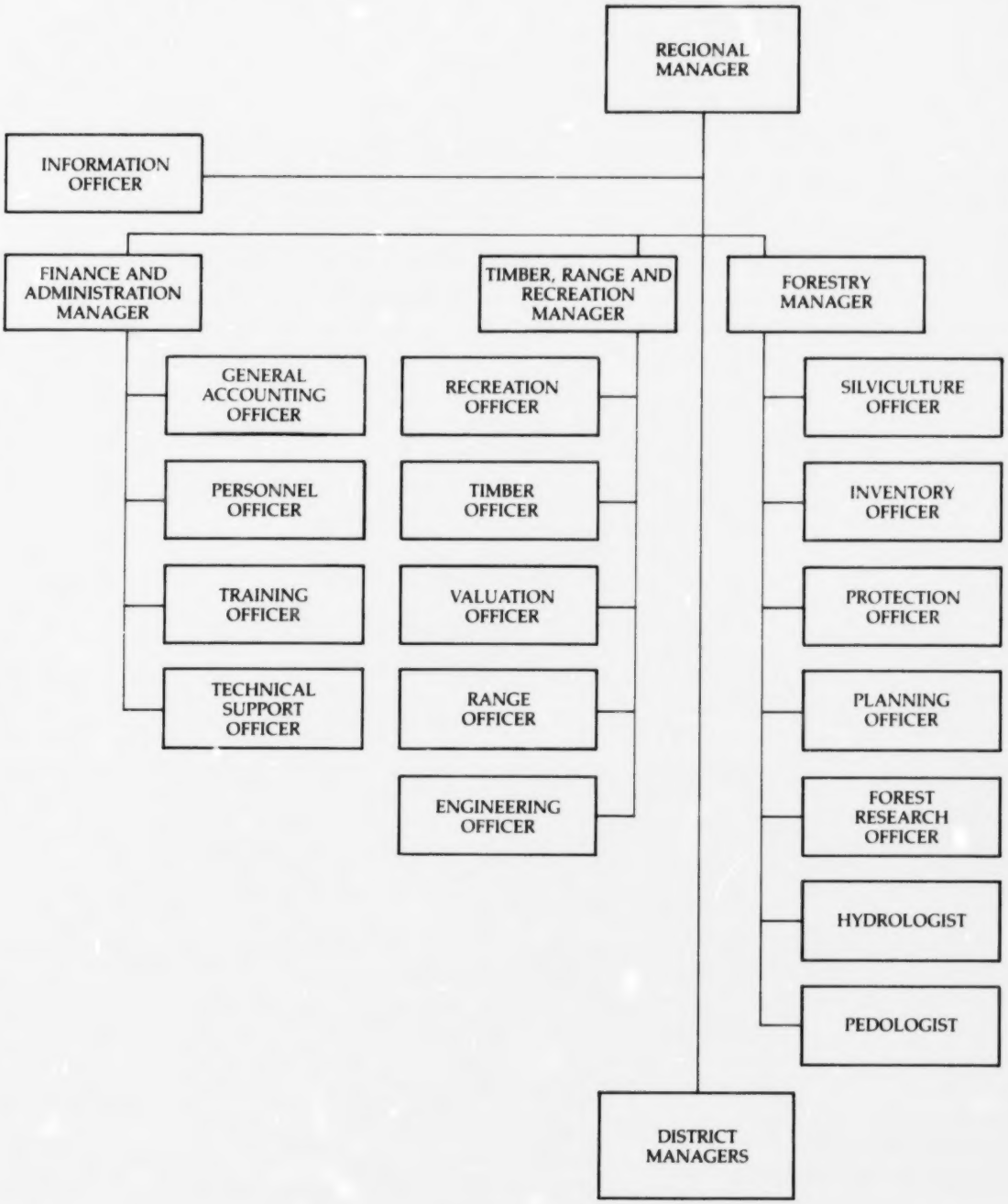


Forest Region Organization

For administrative purposes, the province is divided into six forest regions. Each is administered from its own regional office by a regional manager. Each forest region is further subdivided into forest districts which are under the direction of district managers. The internal organization of each regional office, as shown on page 112, is analogous to that of ministry headquarters. Three regional staff members provide advice and services to the regional manager and to the various district managers and field personnel. Regional office personnel are responsible for servicing, coordinating and monitoring the activities of all field personnel operating out of district offices throughout each region.

The staff of each regional office develops regional programs and plans and ensures that all policies, programs and procedures originating from ministry headquarters are administered consistently and effectively throughout the region.

FOREST REGION ORGANIZATION



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